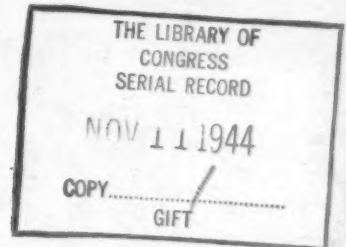


OCTOBER 21, 1944

Railway Age

Founded in 1856



Quick Getaway's



GENERAL MOTORS DIESEL SWITCHERS, endowed with an unusually snappy engine, have a high tractive effort at starting and are capable of rapid acceleration. Given the signal to proceed, GM Switchers are quick on the trigger and off to fast getaways which enable them to handle "Stop and Go" switching quickly and economically. Everyday in all parts of the country, GM Switchers go in and out of yards quickly, spot cars accurately and make up trains smoothly with dispatch and minimum damage to cars and lading. This efficient speeding up of yard movements not only makes possible a greater utilization of cars but big reductions in operating costs.

★ BACK THE INVASIONS—BUY MORE WAR BONDS ★

ELECTRO-MOTIVE DIVISION

GENERAL MOTORS CORPORATION

LA GRANGE, ILLINOIS, U.S.A.

PORTER SWITCHERS

Diesel-Electric



Custom Built
POWER!

You can order a PORTER Diesel-Electric Switcher with the assurance that it will be engineered, designed and built to fit the requirements of your own particular switching or hauling job. An expert

knowledge of switching problems accumulated over a period of 78 years enables PORTER Engineers to design switching power that will give you the utmost in service at the lowest cost for operation and maintenance. Let us analyze your switching requirements and recommend the type of unit best fitted for the job. Such an analysis may reveal possibilities for substantial savings.



H. K. PORTER COMPANY, Inc.

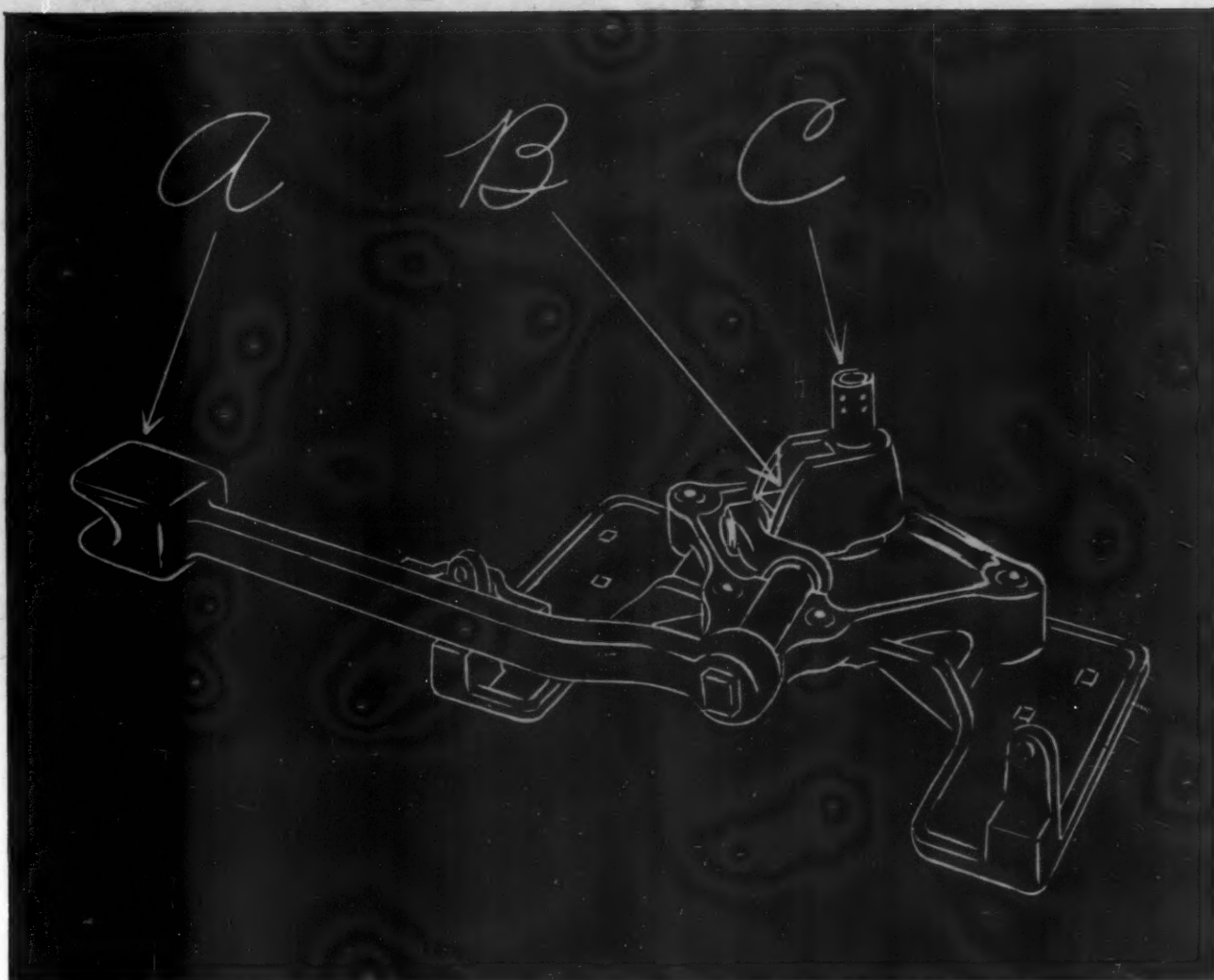
PITTSBURGH 22, PENNSYLVANIA

Factories: Pittsburgh, Pa. • Blairsville, Pa. • McKeesport, Pa.
Mt. Vernon, Ill. • Newark, N. J. • New Brunswick, N. J.

"CUSTOM-BUILT POWER"

This 20 min. kodachrome sound film showing the building of a PORTER Diesel - Electric Switching Locomotive is available for exhibition at clubs, meetings, etc. Applications for booking may be addressed to the Advertising Dept.

Simple as A-B-C



The very simplicity of Bethlehem's Model 53 Switch Stand is largely responsible for its trouble-free operation. Only three moving parts are used—the throwing lever (A), the sliding block (B), and the spindle (C). The complete absence of complicated mechanisms is the best guarantee of easy, positive action and of low maintenance.

When the lever is lifted, the sliding block moves in the grooved portion of the spindle collar. This action rotates the spindle and transmits ample power to the crank.

The sliding block is of heat-treated alloy steel. If any wear should occur after long service, the

block can be turned 90 degrees, bringing two unworn surfaces into use.

Because of its simplicity and all-around sturdiness, the Model 53 is a highly practical switch stand for main-line and heavy yard duty. The soundness of its design has stood the test of years . . . the test of heavy service on some of the country's greatest railroads.

Ask a Bethlehem engineer for more details.



In war and peace *the world's safest transportation*



THROUGHOUT the years, the safety record of the American railroads has been so outstanding that people have rightly felt safer on a train than traveling in any other way.

In view of this, it is worth while to know the safety record of the railroads at war.

Railroad passengers are three times safer in this war than in the last one.

With passenger traffic at a new high in 1943, the average passenger rode in greater safety than in such typical peacetime years as 1938 or 1940.

There have been less than three passenger fatalities for each billion passenger miles traveled.

This record has been made despite the necessity of getting the fullest use out of equipment—and despite the strain under which railroad folks must work.

This is a good record. To make it perfect is our constant goal. And it is fitting to pay tribute to the vigilant spirit and devotion today of the men and women who have made this record in the course of doing the greatest transportation job in history.



AMERICAN RAILROADS
ALL UNITED FOR VICTORY

HIGHLY CONCENTRATED WATER



How to unmask this seasonal Water Goblin

Autumn is the season of lowest water level in streams, rivers, and other sources of feed-water supply. Fall rains add to the high organic concentrations.

Feedwater then turns into a water goblin swollen with steam bubbles which rise to dangerous levels and foam in the boiler.

To unmask the foaming offender, Dearborn Laboratories developed Anti-Foam, a compound which maintains high, safe concentrations of foam-neutralizing salts in the boiler.

Anti-Foam contains no castor oil. It is non-saponifiable and non-hydrolyzable in alkaline boiler

waters; does not form residual soap to create a foaming boiler in sections where water does not require treatment. During layover periods or in operations over several divisions, it is unnecessary to change water in the boiler or tender tank when Anti-Foam is used. It has an effective life many times that of any of the known available organic Anti-Foam materials.

In powder, paste, liquid, and brick form for manual or wayside application. Let Dearborn engineers tell you about Anti-Foam—today.

DEARBORN CHEMICAL COMPANY

310 S. Michigan Ave., Chicago 4
205 E. 42nd St., New York

807-15 Mateo St., Los Angeles
2454 Dundas St., West, Toronto

Dearborn

TRADE MARK REGISTERED



ANTI-FOAM

STABILIZER FINISHING TREATMENT



*A Railroad
is only as strong
as its track*

**SOUND, SAFE TRACK IS
BUILT AND MAINTAINED
EFFICIENTLY & ECONOMICALLY
with JACKSON TAMPERS**

The weight of war has taxed track unmercifully. Freight traffic is reported 5.7% above the 1943 peak while passenger traffic soared to a 23.7% increase. The heaviest rail renewals since 1929 plus early large commitments for track maintenance equipment, indicate an unparalleled activity for maintenance-of-way crews during 1945.

By placing YOUR requisition for JACKSON *vibratory* Tampers and Portable Power Plants *now*, you are insuring early delivery of vital track tamping equipment for your 1945 track maintenance program. . . JACKSON Universal Tampers are recognized as standard equipment on the majority of American railroads.

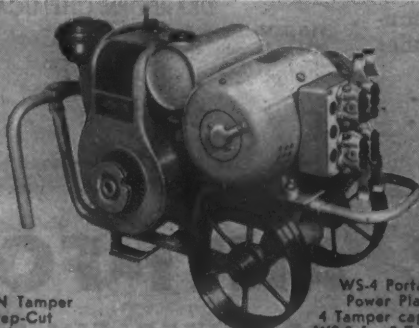
MEMBER



ELECTRIC TAMPER & EQUIPMENT CO., Ludington, Michigan



JACKSON Tamper
with Step-Cut
Blade



WS-4 Portable
Power Plant,
4 Tamper capacity.
WS-8 for 8 Tampers.

JACKSON
TAMPERS and METHODS
*are efficient in any lift and
all ballasts*

MEAT MOVES TO A HUNGRY WORLD

Shorthorns, proud Herefords, and Angus cattle, fat and glossy from the western ranges, are rolling into Chicago Union Stockyards today in ever-mounting supply as America backs up her fighting men and her Allies with the food so vital to victory.

Activity is almost ceaseless in this vast panorama of 7000 livestock pens.

All night the railroads—in another of their fine wartime performances—unload shipments into cattle runs echoing with the scuff-and-clatter of hoofs. Morning sees buyers driving their bargains as they move through the pens on horseback. Beef flows out to packing houses, then to G.I. Joe and you.

Never before this year has there been 8,000,000 cattle on the range. Hog markets have been huge, pressing the top records of nearly 80 years. Sheep in hundreds of thousands—receipts approached 6,000,000 animals in the first half of 1944.

In these six months the railroads unloaded nearly 50,000 carloads of livestock—on the average, a car every five minutes of every work day, 24 hours the clock around!

But it's no new thing for the railroads to be serving the livestock industry—it was the coming of the railroads, still in the wood-burning-locomotive stage, that helped develop this vast enterprise in Chicago. It was to the railroads the stockmen went in 1864 with plans to build one great stockyard out of many scattered yards, and from them they got generous support.

From the days when men drove longhorns all the way from Texas to Chicago, railroad energy has steadily reduced the time of shipments from range to stockyard.

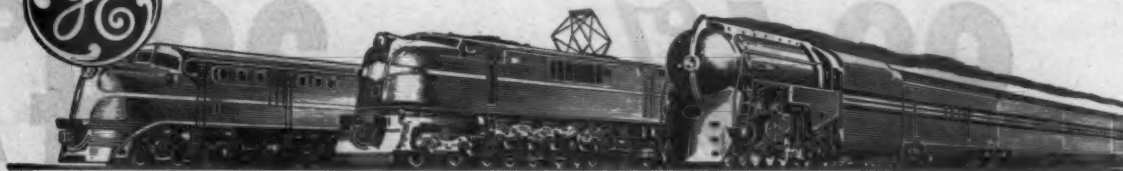
There's ore to haul and munitions and oil and a big wheat crop; now a bumper haul of livestock adds still another challenge to the railroads. They'll meet it—as they have the war's other challenges—courageously and well.

—The Trackwalker*

★ ★ ★



In New York State there is a road that has saved \$1500 per year in water cost alone, after installing two Alco-G.E. diesel-electric locomotives.



AMERICAN LOCOMOTIVE • GENERAL ELECTRIC

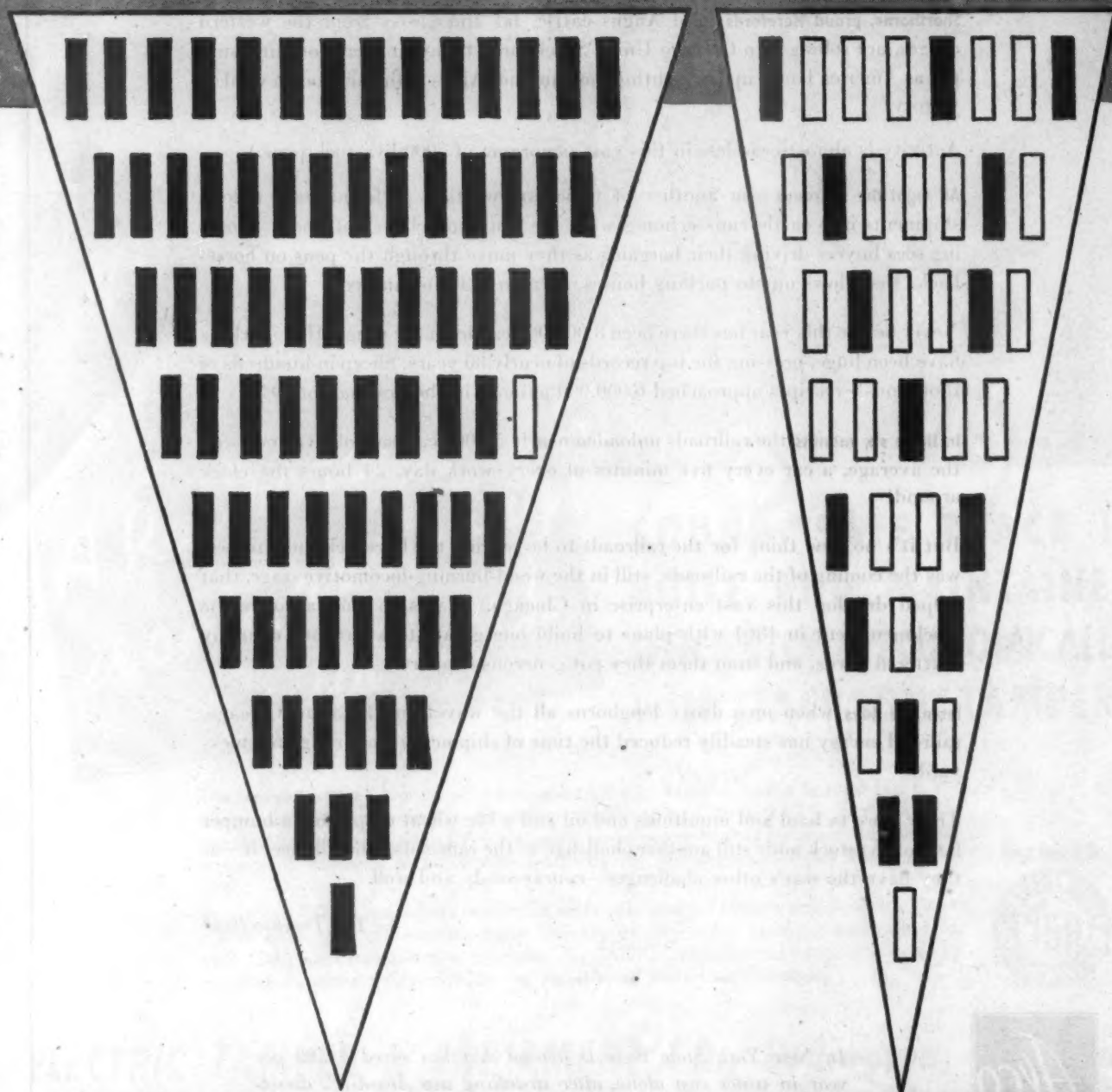
Copr., 1944, American Locomotive Company, and General Electric Company

*Reg. U.S. Pat. Off.

115-102-0500

GRUELING TESTS PROVE

HERE ARE THE RESULTS...



POZZOLITH CONCRETE

98.6%

PLAIN CONCRETE

38.4%



MASTER

POZZOLITH CONCRETE

CEMENT DISPERSION

amazingly superior
in **DURABILITY**

**LEADING TESTING AUTHORITY FINDS IN
SEVERE SEA WATER TESTS THAT POZZOLITH
PRODUCES VASTLY GREATER DURABILITY
..... WITH INCREASED STRENGTH**

1. Pozzoloth increased DURABILITY—

In SEA WATER—after 142 Cycles of Freezing and Thawing

Plain Concrete—of 39 beams tested.... 15 survived.. 38.4%

Pozzoloth " — " 77 " " 76 survived.. 98.6%

In FRESH WATER—Freezing and Thawing

Plain Concrete—after average 50 cycles.. durability factor - 20

Pozzoloth " — " " 176 " .. " " - 80

2. Pozzoloth increased STRENGTH—

3-day Compressive 50 to 70%

28-day " " 12 to 25%

3. Pozzoloth cut WATER-CEMENT Ratio..... 13 to 15%

4. Pozzoloth cut BLEEDING..... 55 to 60%

With the exception of durability, the many important advantages of Pozzoloth (Cement Dispersion) can be measured during the construction of a job. Because of this fact the functional advantages and lower initial costs have been irrefutably proved during the 11 years' use of Pozzoloth in millions of yards of concrete.

Now the amazingly high durability of Pozzoloth Concrete has been indisputably proved by the findings of the Nation's highest testing authority.

If you would like to see complete test data on Pozzoloth, write today and we shall be glad to submit it to you.

THE MASTER BUILDERS COMPANY
CLEVELAND 3, OHIO

TORONTO, ONTARIO

BUILDERS





The story of the PATRIOTIC POTATOES

The shortage of critical materials has interfered with freight car construction, and war traffic places severe demands on the present supply of cars. Consequently, the Office of Defense Transportation and the railroads have asked shippers to load freight cars more heavily, because the bigger the load in each car, the fewer cars required. Thus more cars will be available for war traffic.

Well, the potato growers in Kern County, California, decided to see what they could do about it. They had 26,896 tons of potatoes to ship, which would normally require 1,775 freight cars. By loading three extra tons of potatoes in each car, they got their crop into 1,499 cars, releasing 276 badly needed cars for other purposes.

This is an outstanding example of the voluntary cooperation that shippers are giving at many points on our lines, and elsewhere in the United States. It is helping to keep war goods and vital materials moving smoothly and swiftly to the places where they're needed. We think these shippers deserve a vote of thanks for their constructive action in behalf of the war effort.

One
\$18.75 War Bond
will buy four
37 mm. shells.

The War Bonds
you buy now
will pay for new
farm equipment
after the war.

"STAND Bigger



STEEL CARS

THE GAFF" OF

Wartime Loadings

Pressed Steel Cars, many of them, are carrying increased loads all over the great Southern Pacific System. Their performance, under unusually severe conditions, is the expected because for years they have been demonstrating their durability, safety, availability and low maintenance cost.

PRESSED STEEL CAR COMPANY, INC.

NEW YORK

PITTSBURGH

CHICAGO

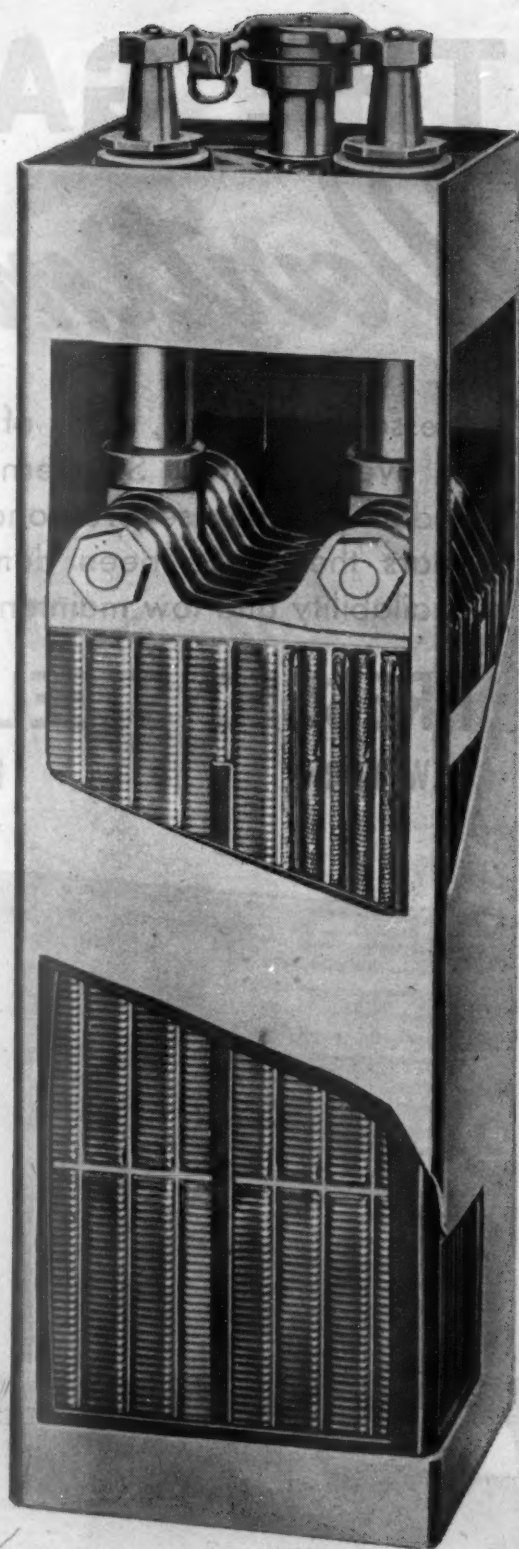


STRONGEST *yet* **LIGHTEST**

HERE is a cut-a-way view of a single cell of a typical Edison Alkaline Battery for railway passenger car service. Note its construction. It is entirely different from the cell construction employed in other types of storage batteries. The container, cover, pole pieces and other structural parts of the cell are *all* made of STEEL. Even the active materials are permanently locked in perforated STEEL tubes and pockets. These in turn are securely assembled into STEEL grids to form the positive and negative plates. The STEEL cover is welded onto the container. The result is high mechanical strength.

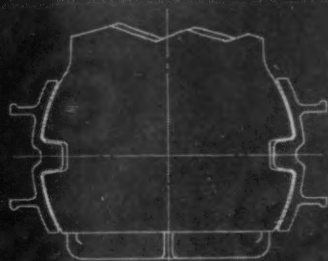
Yet alkaline batteries are also the lightest of all types of batteries available for railway passenger car lighting and air conditioning service. In fact, they are one of the few car accessories in which it is possible to save weight and gain structural strength at the same time. *Edison Storage Battery Division of Thomas A. Edison, Incorporated, West Orange, N. J.*

Edison
ALKALINE BATTERIES

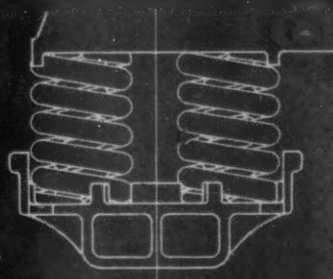


THE A.S.F.

FREIGHT-CAR TRUCK




Here is a rugged truck of simple design. It combines all the essentials of a good freight-car ride with the low-maintenance benefits of simple construction. To illustrate, the A. S. F. Basic Freight-Car Truck is held together by tongues on the side frame columns that mesh with grooves in the bolster. Curved surfaces between side frame columns and bolster minimize column wear, eliminate binding, and assure generous contact areas to provide dependable operation.



Of simple construction, too, is the flanged spring seat that is an integral part of the side frame. Every side frame and bolster meets all A. A. R. strength requirements. And for greater utility, the Basic Truck can be used with either all-coil spring groups or combination snubber-coil spring groups. The Basic Truck is a safe freight-car truck.

AMERICAN STEEL FOUNDRIES

CHICAGO

MINT-MARK OF  FINE CAST STEEL

THE YOUR PASSENGERS' PLACE IN THE SUN!

The sun increases the inside temperature approximately 8° on the sunny side of car.



VAPOR SIMPLIFIED ZONING ASSURES EQUAL COMFORT ON THE SHADY SIDE OF THE CAR AS WELL AS ON THE SUNNY SIDE!

Every passenger in a post-war car can be provided with temperature comfort with a minimum of additional equipment through Vapor simplified zoning of car heating.

The basic temperature zones include separate recognition of the sunny side of the car and the shady side of the car. Proper zoning also recognizes end door draft effect on passengers in end seats. Vapor simplified zoning

recognizes that temperature comfort in lounge and smoking rooms must be provided.

Vapor simplified zoning also recognizes that overhead and floor heat must be correlated. For post-war cars, Vapor offers a new simplification of equipment and application of the Vapor Zone principle requiring a minimum of equipment to accomplish maximum passenger comfort.

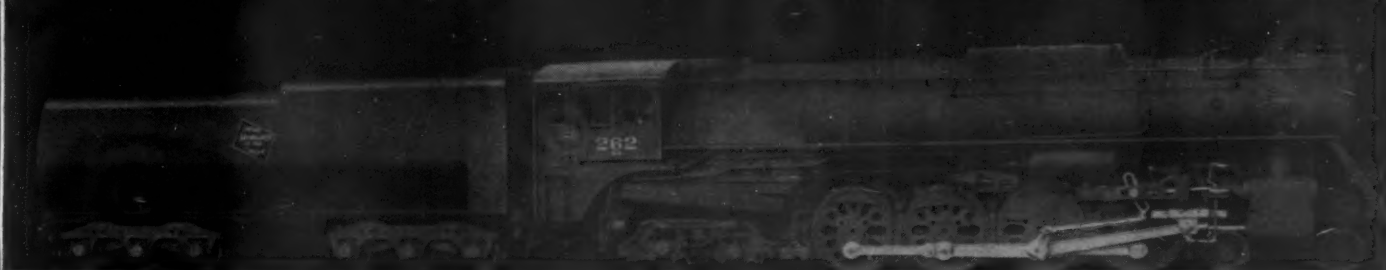
Ask the Roads who have zoned them! Over 3,000 cars equipped just before and during the war with Vapor Zone Heating System is proof that temperature comfort must be provided for each passenger

VAPOR CAR
RAILWAY EXCHANGE



HEATING CO.
CHICAGO 4, ILLINOIS

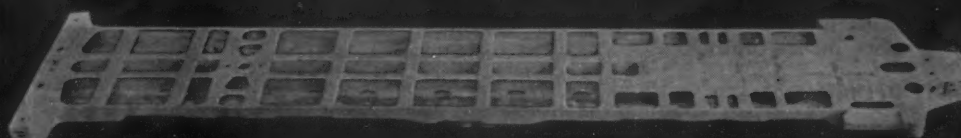
COPYRIGHT 1944



Milwaukee's New High Speed 4-8-4's Are Equipped with these COMMONWEALTH PRODUCTS

- Deflecting type Pilots
- Locomotive Beds
- BOXPOK Driving Wheel Centers
- 4-Wheel Trailer Trucks
- Waterbottom Tender Frames
- Straight Equalizer,
Swing-Motion,
6-Wheel Tender Trucks

Now operating between Omaha and Chicago in fast freight and passenger service, this C. M. St. P. & P. R. R. locomotive, with a total active effort of 62,000 pounds, is equipped with COMMONWEALTH products. The driving wheels 74" in diameter, of 10 modern 4-8-4's is extensively used. These new locomotives, built by Alco, are a noteworthy addition to the efficiency of America's modern power.



Commonwealth Waterbottom Tenderframe
Tender Capacity: 20,000 Gallons Water, 25 Tons Coal

GENERAL STEEL CASTINGS

EDDYSTONE, PA. • GRANITE CITY, ILL.



You can forget
HIGH TEMPERATURE SHUT-OFFS
...in Tomorrow's Air Conditioned Cars

It's TOUGH on passengers when the air conditioning system breaks down on a hot day. But it's doubly tough when it stops working due to excessive outside temperatures such as encountered in the Southwest. In such heat, head pressure often reaches a limit that sets off the safety device, cutting the system out of operation.

Right here is where Sturtevant engineering skill and research lend a hand—to bring you equipment that will keep systems running in the highest ambient temperatures found in the United States. With the Sturtevant Evaporative-Condenser Unit—ready for delivery as soon as conditions permit—an extra cooling effect produced on condenser coils liquifies the Freon gas inside . . . reducing pressure to a level well under safety device limits.

HOW IT OPERATES

Suspended underneath the car, the Evaporative-Condenser Unit sprays large quantities of water over the coils, and evaporates the water with a blast of air.

Because distances between stations in the Southwest are so great, it is often necessary to carry as much as 175 gallons of water for spraying. This is contained in a stainless steel, leak-proof

tank supporting a motor driven pump. Water is pumped to the casing, or upper part of a unit, forced through a bank of spray nozzles and over the condenser coils.

Meanwhile, air from outside is being drawn into the casing by double Multi-vane fan units, which force the air through inlet filters and over the sprayed coils, cooling them by evaporation.

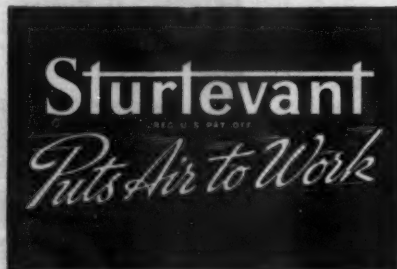
MANY OTHER IMPROVEMENTS, TOO

If you're interested in this Evaporative-Condenser Unit, it's ready to be worked into your drawings now. And right now—while you're designing for tomorrow—is the time to look into all the latest in pressure ventilation as well as complete ice or mechanical refrigeration. Sturtevant has valuable facts ready on new, more efficient equipment, including the Sturtevant Compressor-Condenser Unit, the divided Fan-Evaporator, and a dry Surface Condenser Unit. Sturtevant Engineers will work with you to plan the most advanced equipment for "putting air to work." NO obligation, of course.

B. F. STURTEVANT COMPANY
 HYDE PARK BOSTON 36, MASS.
 Branch Offices in Principal Cities

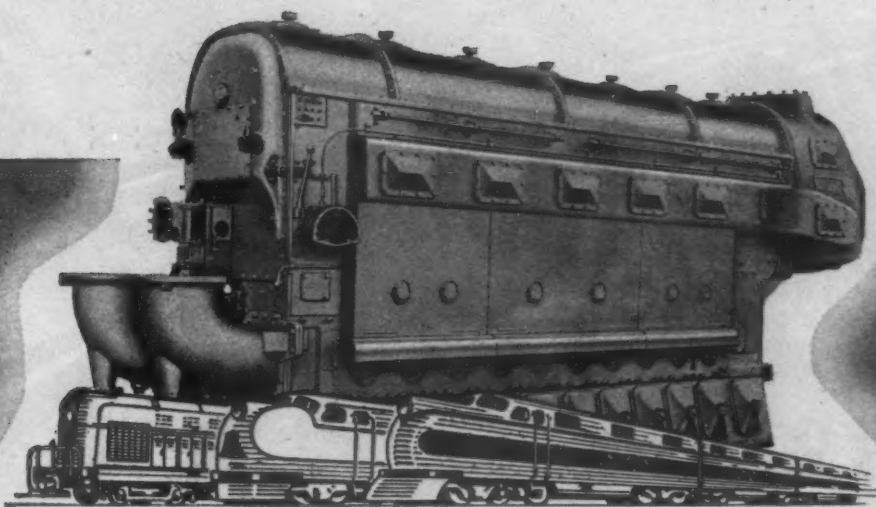
LOOK FOR—AND GET
 These Sturtevant
 Air Conditioning Advantages:

- 1 More uniform temperature and humidity conditions in the car
- 2 Equipment designed for easy maintenance
- 3 Equipment designed for minimum space and weight
- 4 Equipment that requires a minimum power load



STURTEVANT "Railvane" Units or Systems are used by 40 railroads and are covered by more than 60 issued patents and patents pending.

Here's Fast, Economical Servicing for Diesel Locomotives



Fairbanks-Morse Diesel Locomotives are serviced faster and at lower cost because:

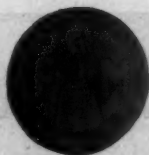
- 1.** They use 2000-horsepower Diesels... use from one to three less engines and main generators per locomotive.
- 2.** Their Diesels are simpler . . . have no valves or valve-activating mech-

anisms, no cylinder heads, fewer cylinder liners.

Fairbanks-Morse Locomotive Diesels have *proved* their merit . . . more than two million horsepower are in active service.

Fairbanks, Morse & Co., Fairbanks-Morse Building, Chicago 5, Illinois.

A name worth remembering!



FAIRBANKS-MORSE

Built with *Amcreco* products

DEPENDABLE!

LONG LIVED!

**structures that
support today's
heavy
transportation
demand!**

AMERICAN CREOSOTING COMPANY

INCORPORATED

**COLONIAL
CREOSOTING
COMPANY**


INCORPORATED



**GEORGIA
CREOSOTING
COMPANY**

INCORPORATED

ADDRESS INQUIRIES TO CHICAGO, ILL., OR LOUISVILLE, KY.

A large, stylized illustration of Rosie the Riveter, a female worker in overalls and a bandana, holding a rivet gun. She is positioned on the right side of the page, looking towards the left. The background features a large, faint illustration of an airplane wing with rivets. On the left side, there is a large, dark silhouette of a person's head and shoulder, looking towards the center. The text "HERE, ROSIE, THE RIVETER" is written in a large, bold, sans-serif font, with "is one of the reasons you can do your job so well" in a smaller, italicized font below it.

"HERE, ROSIE, THE RIVETER is one of the reasons you can do your job so well"

Scotch tape holds a row of rivets in place for you, doesn't it, Rosie... multiplies your production on your vital job? Well, yours is just one of the thousands of war or civilian uses for such tape.

Obviously, tape production mustn't be interrupted. Moreover, quality must remain uniform.

And that's where Bowser Exact Liquid Control comes in. Years ago, one of America's largest producers of industrial tape installed Bowser Meters to measure precisely the various ingredients that give tape adhesive the proper consistency. Then other Bowser Meters measure the flow of adhesive on the backings of cellophane, paper or other materials.

But there was another tough problem—rust and dust in the adhesive solvent caused the backing sheets to tear as they passed through the applicator machine. There were frequent costly shutdowns. How were they licked? By a Bowser Filter, which clears the solvent.

Visit other departments of this company and you'll find Bowser Lubrication and Filtration units, Fuel Oil Meters, etc., doing work that couldn't be done as well, if at all, by any other method.

Still another phase of Exact Liquid Control in which Bowser leads is the fueling of gas and Diesel electric locomotives. A Bowser metering and pumping unit will deliver 800 to 850 gallons or more in 4 to 5 minutes. If a Recording Printer Meter is used, up to 8 copies of the delivery record are automatically printed.

The hairline accuracy of Bowser Meters is also useful as a check of Diesel efficiency. One railroad, checking Bowser Meter reports against its engine efficiency charts, pulls the engines from service for a check-up if they are consuming 6% or more oil above chart figures. This is one of the most exact tests of efficient Diesel operation. BOWSER, INC., Fort Wayne 2, Indiana.



THE NAME THAT MEANS EXACT CONTROL OF LIQUIDS



Not only has Bowser's war production earned the Army-Navy E... Bowser equipment has helped earn it for scores of other companies.

BUY WAR BONDS

Don't Penalize Your Railroad!



Stabilize with **Barber** PREVENT

Harmonic
Bouncing

Bolster and
Column Wear

Spring
Breakage

Barber Stabilized Trucks have proved their superior qualities by preventing spring breakage, harmonic bounce, and bolster and column wear. This results in a saving, as lading damage is negligible, and time out on the rip track for truck repairs is greatly reduced.

Easy riding at speeds as high as 90 miles an hour is definitely assured with Barber Stabilized Trucks because they damp both the up-and-down movement of the spring supported bolster. Friction pressure of Barber Stabilized Trucks is in proportion to the car load—NOT A FIXED PRESSURE.

For better freight car operation, specify Barber Stabilized Parts for trucks on new and rebuilt cars.

Barber Stabilized Trucks have been selected for over 50% of all freight cars purchased since January 1, 1944.

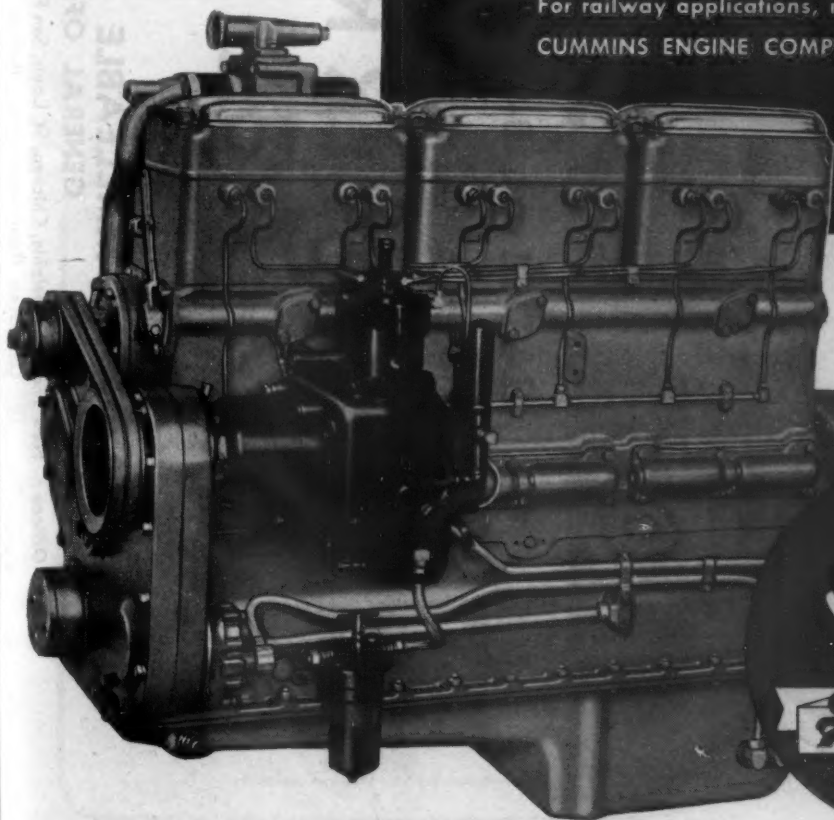
STANDARD CAR TRUCK COMPANY
332 SOUTH MICHIGAN AVENUE CHICAGO 4, ILLINOIS



Key to Lower Power Costs

In Cummins Diesel power, designers and operators of heavy-duty railroad equipment are finding the key to lower operating costs. Compact design and higher rpm. assure a higher ratio of horsepower output to engine weight and size—more payload capacity. Rugged construction, which provides for easy accessibility of parts and unit removal of accessories, reduces maintenance and service cost. The exclusive Cummins Fuel System minimizes fuel cost—accounts for the Cummins Diesel's smooth, flexible performance and quick, cold weather starting.

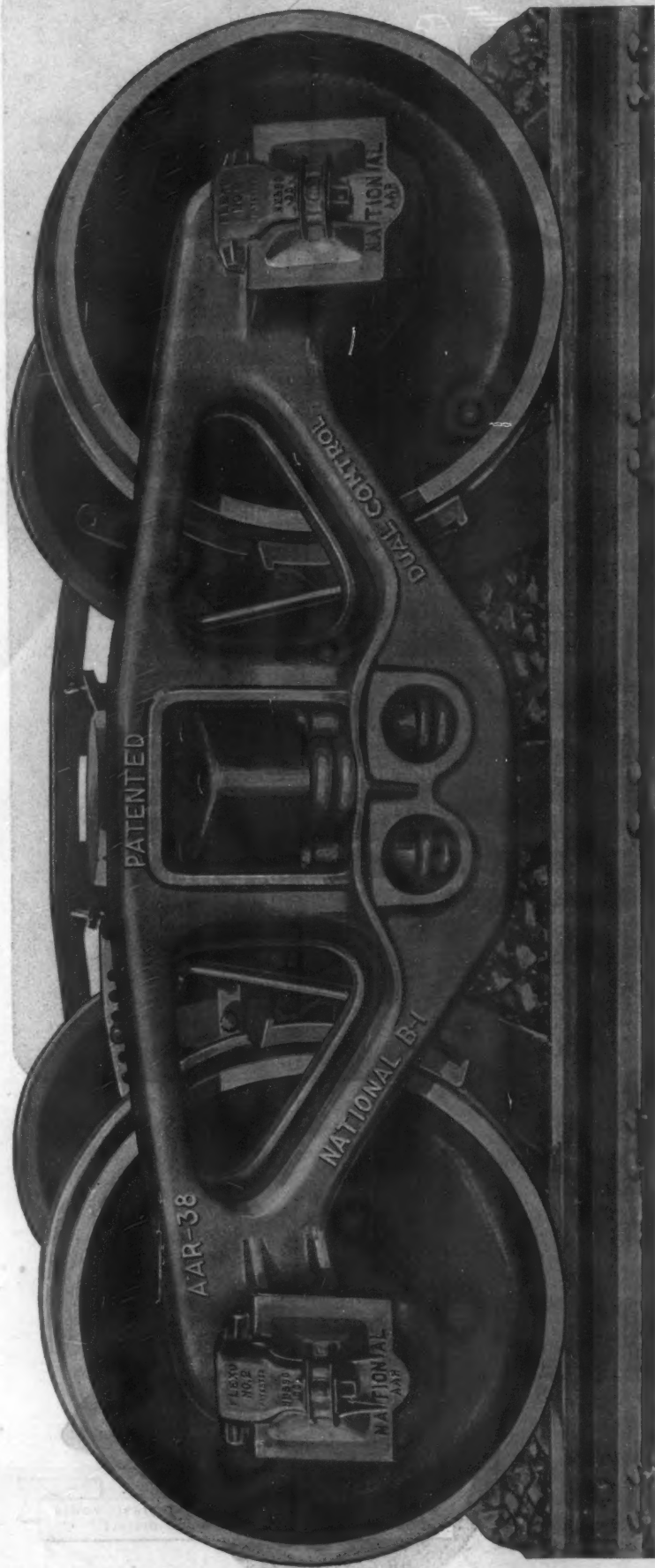
For the new equipment you are designing now or will operate tomorrow—mainline or switching locomotives, motor trains or modern passenger trains—specify Cummins Dependable Diesels for motive or auxiliary power. For railway applications, models from 125 to 475 hp. CUMMINS ENGINE COMPANY, INC., Columbus, Ind.



**CUMMINS
DIESELS**



SINCE 1918...PIONEER OF PROFITABLE POWER
THROUGH HIGH SPEED DIESELS



NATIONAL B-1 TRUCK WITH DUAL CONTROL

No Spring Plank — No Spring Plates — No Spring Loss — Quick Wheel Change

SMOOTHER RIDING and SAFETY **at Higher Freight Speeds**

NATIONAL MALLEABLE AND STEEL CASTINGS COMPANY
GENERAL OFFICES: CLEVELAND, OHIO

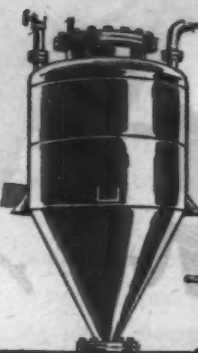
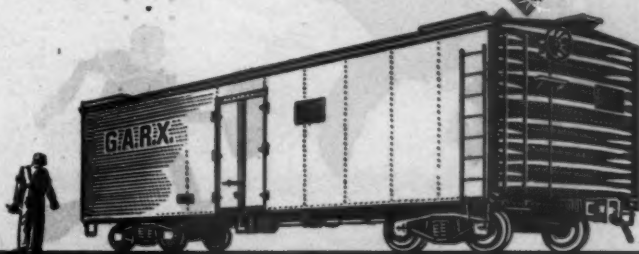
Sales Offices: New York, Philadelphia, Chicago, St. Louis, San Francisco • *Works:* Cleveland, Chicago, Indianapolis, Sharon, Pa., Melrose Park, Ill.
Canadian Representatives, Railway & Power Engineering Corporation, Ltd., Toronto and Montreal

From the Bar-X Ranch to a Kitchen Range



1 A General American stock car carries cattle to the stock yards.

2 ...Beef-sides are speeded to your city in scientifically cooled General American refrigerator cars and the meat is soon cooking on your kitchen range.



3 Packing plants, using rendering tanks made by General American Plate & Welding Division, also produce edible oils...

GENERAL AMERICAN TRANSPORTATION CORPORATION

Chicago

Builders and operators of specialized railroad freight cars



Bulk liquid storage terminals



Pressure vessels and other welded equipment



Aerocoach motor coaches



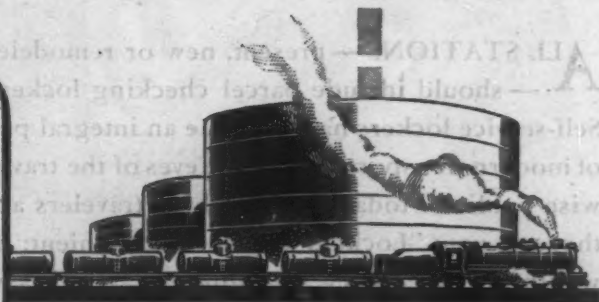
Process equipment of all kinds



Precooling service for fruits and vegetables



4 ...which are shipped in General American tank cars to General American Terminals for safe, protective storage and fast handling.



One of a series of advertisements designed to show General American's contribution to everyday living and our part in the efficiency of American Industry during war and peace.



A NATION-WIDE LOCKER CHECKING SERVICE

ALL STATIONS—present, new or remodeled—should include parcel checking lockers. Self-service lockers have become an integral part of modern transportation in the eyes of the travel-wise public of today. . . . Ask busy travelers and they tell you: "Lockers are more convenient; no waiting in line. They save time on arrival, save time at departure; they're private; they're safe; they're easily accessible and all for a dime."

Parcel locker checking has increased over four times in the last three years. It accounts for over 60% of all parcel checking in stations and terminals. It gives maximum service in minimum space, with smart, modern equipment designed to harmonize with the streamlined trends in transportation. . . . Remember to specify American Lockers. Our consultants will confer with you and make surveys and recommendations without obligation.

AMERICAN LOCKER COMPANY, Inc.

211 CONGRESS ST., BOSTON 10, MASS.

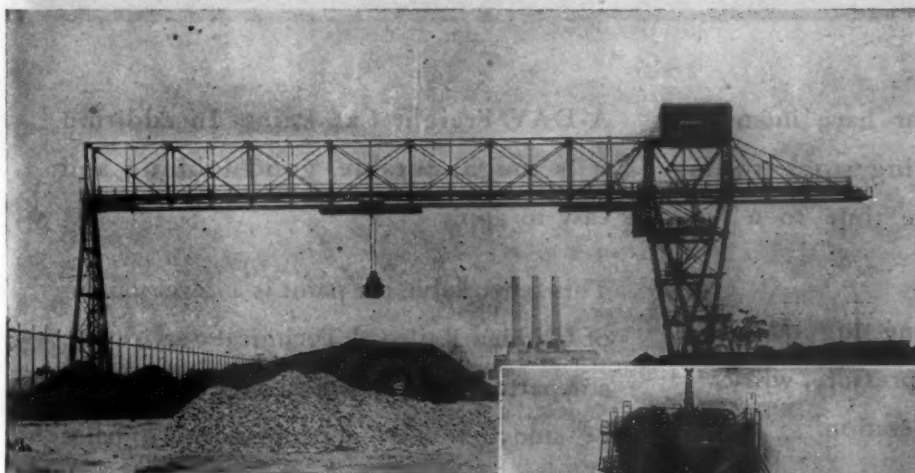
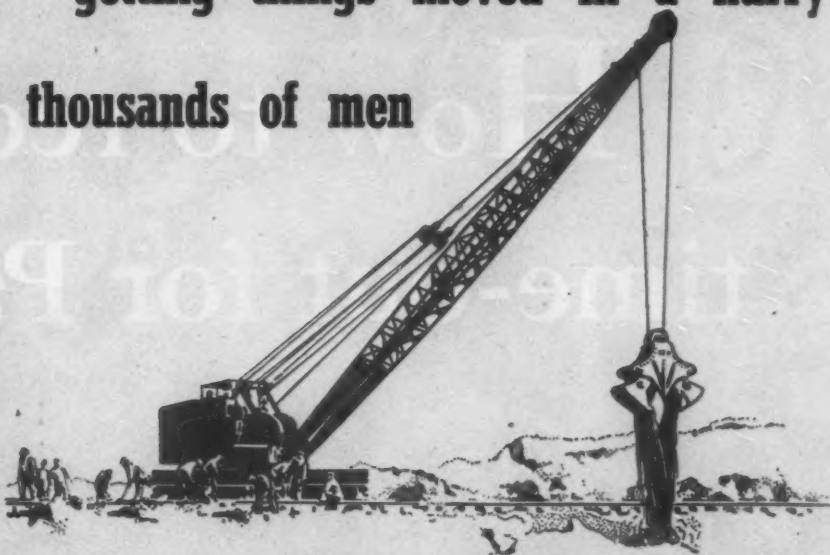
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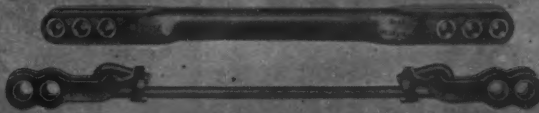
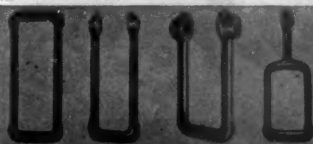
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			1968	1969	1970	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981	1982
CAPACITY	Ames, C. M.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Beard, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Boyd, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Clark, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Deane, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Edwards, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Evans, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Frederick, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Gibson, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Harris, C. B.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
WEIGHT	A - Light Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	B - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	C - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	D - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	E - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	F - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	G - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	H - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	I - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	J - Heavy Construction	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
FUNCTION	Ames, C. M.	20.0	14.0	27.0	30.0	33.0	36.0	39.0	42.0	45.0	48.0	51.0	54.0	57.0	60.0	63.0	66.0
	Beard, C. B.	20.0	14														

[illegible]

The efficiency of Stan-Kan railroad ballast
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half of the principal railroads in the United
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203. 19 -- Blue-Down Line No. 518,200 cold steel, used
1 1/2 Cu. Yd. 2 line found near lower end bracket One of
17 brackets of this size purchased by Harmons & Olsen
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satisfactory service -- this picture taken November 1933



FIG. 10—Blue-Kross Size No. 605-221
label of Co. Vd. 2-line round neck, lower
arm bracket used for drinking, tuben
handling, coughing, etc.

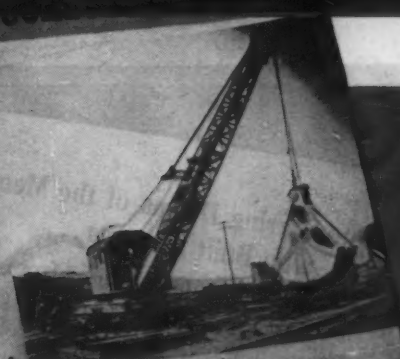


FIG. 10 -- Mass-Knox Gun No. 618-951 (new style, tested
1 1/2 Cu. Yd. 2-lb. round cone target arm bucket)

For Complete Data on Rehandling General Purpose and Hard Digging Buckets - See Blaw-Knox Catalogue No. 1757.

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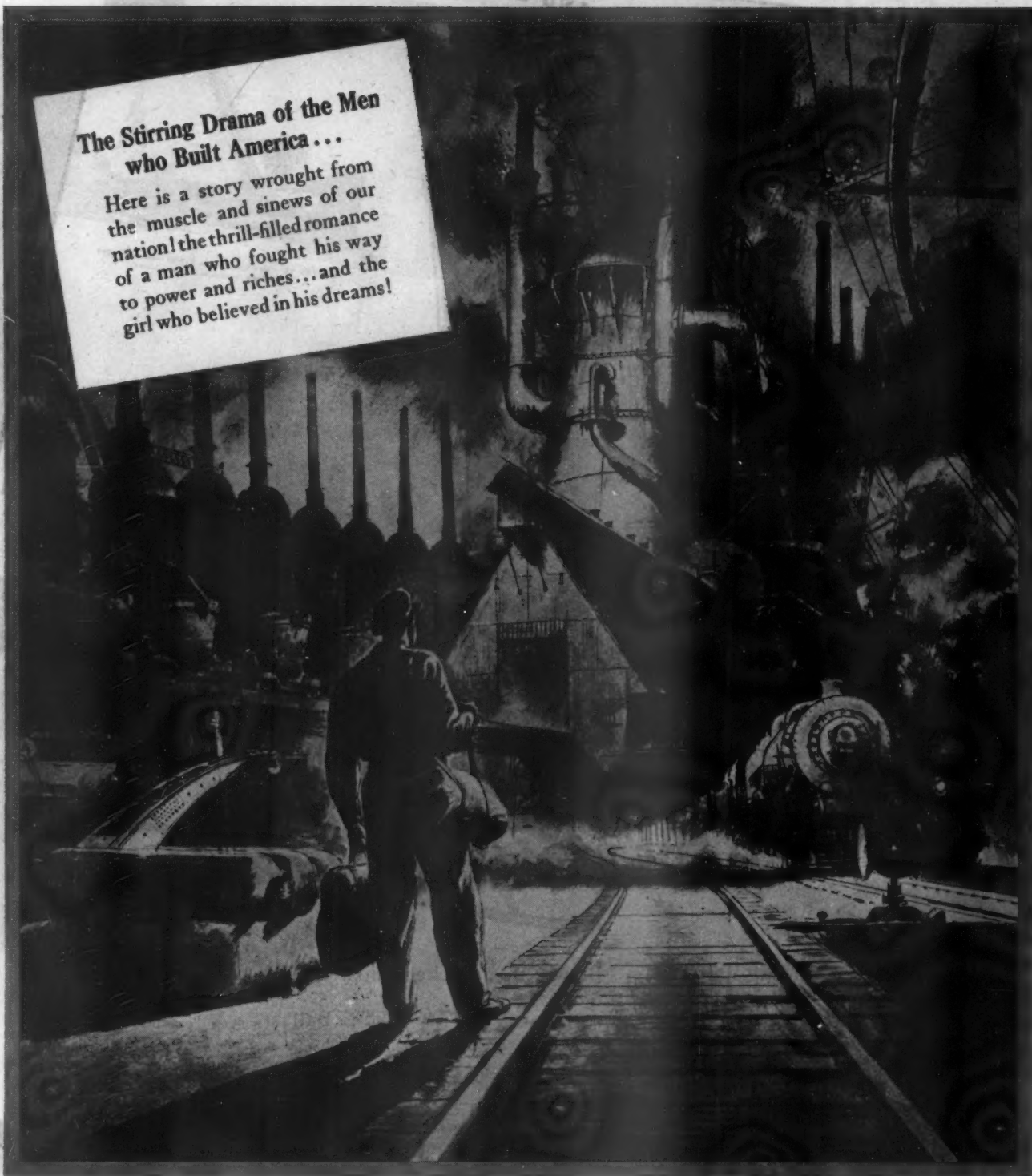
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girl who believed in his dreams!



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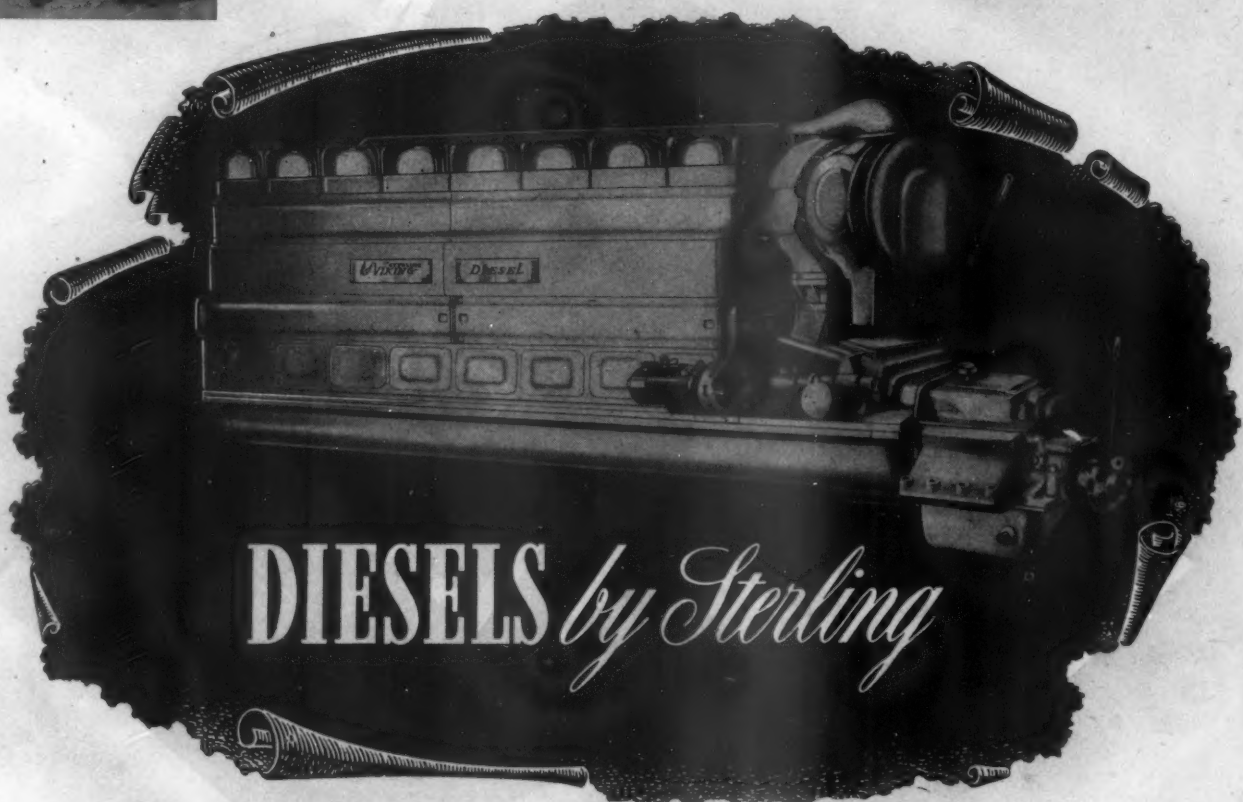


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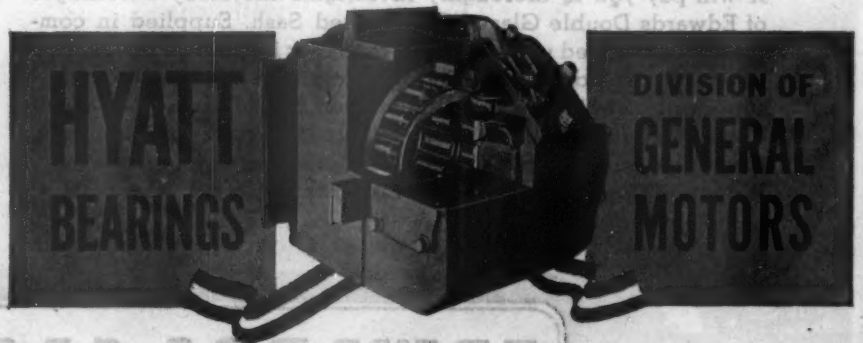
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Railway Age

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What Kind of Repair Facilities for Diesel Locomotives?

Page

615

In discussing this subject, P. H. Hatch, mechanical engineer, N. Y., N. H. & H., states that when this type of motive power was first employed by railroads "there was an experimental air" about its entire application. Having passed through this earlier stage, he herein suggests long-time programs are now indicated.

Santa Fe Improves Coast Lines

619

Further facts about the extensive construction program under-
taken by this railroad to handle the traffic load imposed by war-
time conditions. The first part of this article appeared in last
week's issue.

Justice Department Rate Views Analyzed

623

Its lawyers' contentions are based upon misrepresentations and
omissions of fact, and, points out J. G. Kerr, chairman, Southern
Freight Association, should their efforts prevail chaos will cer-
tainly result.

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Engineering Index Service



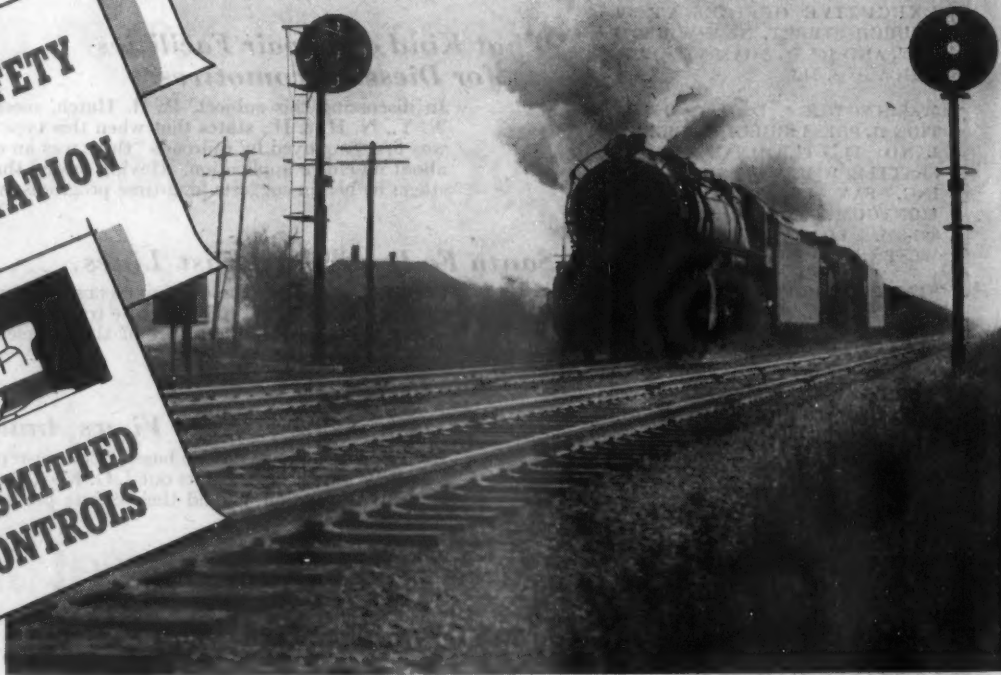
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employing steady-energy track circuits. • Longer track circuits are operated with coded control than is possible with steady-energy track circuits and therefore cut sections are seldom required. • Increased safety of train operation is obtained as the display of a "non-restrictive" signal indication depends upon the continuous operation of the code-following track relay in response to the coded energy applied to the track circuit. For complete information, see Bulletin No. 157.

UNION SWITCH & SIGNAL COMPANY
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The Week at a Glance

TIMIDITY IS DANGEROUS: When the war ends there will follow severe unemployment unless private business quickly gets under way again—not only in the consumer goods industries, but capital goods as well. Buying capital goods on a large scale always involves the risk that business won't be brisk enough to make the new investment profitable—but, in the time not far ahead, lack of vigor in private business is certain to lead to expansion of public works (and, hence, to more taxes and competition to the permanent damage of private enterprise). As the leading editorial herein suggests—buying of capital goods on a large scale by railroads and industry may turn out badly—especially in the long run, if the New Deal and its communist following win the election; but failure of business to buy on a large scale and thus prevent wide unemployment would be almost *certain* to bring results harmful, if indeed not fatal, to private enterprise.

CLEARED WITH SIDNEY?: The pettifoggery by which the Justice Department's anti-trust lawyers are seeking to pervert the public's perspective on rate-making procedure necessary in the public interest, is analyzed in an article herein by Joseph G. Kerr, chairman of the Southern Freight Association. Mr. Kerr quotes these playboys with the public welfare as saying things that anybody but a layman in traffic matters knows to be the exact contrary of the truth. And he reminds us with what scorn kindly Joe Eastman scotched the misrepresentations of these officials. But Joe died, and so they have revived their calumnies. As Mr. Kerr suggests, they are obviously chagrined that co-operative action has enabled the railroads to make such a good showing in the movement of war traffic, and they are out to destroy it.

THE SHIPPERS' INTEREST: What the Justice Department youths want is for each railroad to make its own rates (i.e., as long as they are downward revisions), without any notice to shippers or competitors, and in disregard of the safeguards for the interests of all parties imposed by the Interstate Commerce Act. Competing producing areas would have no notice of what was going on until a rate undermining their position had already been put into effect. The Justice Department's young men, clearly, do not merely intend making intolerable mischief for the carriers; they also want to take all foresight, system and measured justice out of inter-area competition among producers. If their views are triumphant, the carriers will have the company of most of their customers in the ensuing chaos. Does the public understand these things? Have the facts had the publicity that falsehood has enjoyed?

"JUSTICE BY EAR": The New York Times' able and trustworthy correspondent in Italy, Herbert L. Matthews, reports that the former governor of the Bank of Italy has been condemned "on moral ground not a legal one" to 30 years' imprisonment by a so-called "high court of justice" of the present Italian regime sponsored by the

Allies. The judges of the court, for the most part, were "representatives of political parties," and not professional magistrates. In arriving at its decision, Mr. Matthews says the court used the same criteria of what constitutes guilt or innocence as were employed by its Fascist predecessors. Maybe this seems to have little to do with railroading, but there are those who have described symptoms of a similar attitude toward the law in operation on this side of the Atlantic—and encouragement of such a brand of "justice" in any place where the U. S. government has some authority is an event worthy of note by domestic industrial leadership.

CARS TIGHTER THAN EVER: There are not now enough freight cars to move the traffic being offered, but the shortage should neither continue indefinitely nor grow worse. Such was the information given by L. M. Betts of the Car Service Division to the Mid-West Shippers' Board, at its last week's meeting, reported in the news pages herein. Among the reasons for the stringency are the following: 10,000 fewer box cars, heavy demands of the grain crop on the supply, the fact that shippers are detaining cars longer than they did a year ago (a condition ascribable to the failure of the Manpower officials to allow shippers and consignees sufficient labor to load and unload cars promptly), government departments' refusal to load cars heavily or to alter round-about routings.

REVISED DEMURRAGE ORDER: The sliding scale of demurrage rates on box cars applied October 19-November 19 has been further stiffened by the I.C.C. in a revision of Service Order No. 242. Rates are set at \$2.20 per day for the first two days after expiration of free time; \$5.50 for the third day; \$11 for the fourth day; and \$16.50 per day thereafter. The top penalty was \$11 per day in the original order. Where "average agreements" are in effect, the customer may apply all his \$2.20 assessments as offsets to his credits—but not the assessments at \$5.50 or more.

HOUSEKEEPING FOR DIESELS: Initially, the Diesel-electric locomotive came on the railroad as a supplementary power unit and was serviced and maintained through various make-shifts, and with large reliance on the manufacturer. Now, however, Diesel power is becoming a major reliance on many railroads—with every economic and engineering reason for squaring off and looking at its servicing and repair as a major railroad activity, to be dealt with, no longer by expeditors, but in the same comprehensive manner that rolling stock or steam locomotives are cared for. An article in this issue by the New Haven's mechanical engineer, P. H. Hatch, surveys the Diesel's needs in the way of housekeeping arrangements from just this inclusive viewpoint. Uncle Tom, when he comes for a visit of uncertain duration, may be bedded down at first on the davenport in the sitting room but—since he is now going to stay—he needs a room and a set of furniture of his own.

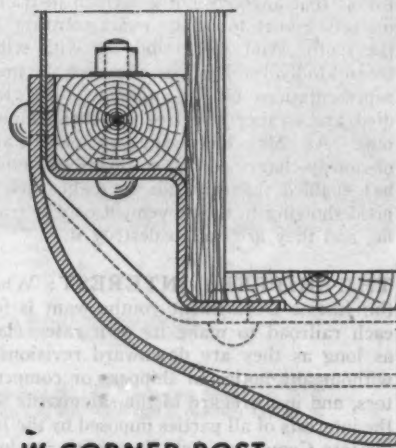
INACCURATE HISTORY: A popular history book is now being sold by the carload, which contains a map purporting to show the extent of railroad land grants. This map is likely to leave the reader with the impression that these grants were almost four times as large as they actually were. An editorial in this issue compares the actual magnitude of the land grants with the impression the map in this book gives the reader; and draws attention to the moral obligation upon the historian to make more than an easy and superficial search for the truth about questions to which the public looks to scholarship for correct answers. If the record available to the public is inaccurate, how can public policy accord with the facts? This book is another reminder that scholarly writings comprise, so far, a relatively neglected though crucially important aspect of the situation comprehended under the general term "public relations." It is just as important to industry that its story be accurately and fairly related in reference and text books, as in the press.

PUBLIC RELATIONS A DUTY: A business institution, especially a big one, is too complex an undertaking for John Q. Public to understand entirely on his own initiative. Yet if Mr. Public doesn't have at least the basic facts about this institution straight in his mind, his treatment of the enterprise may be such as to prevent it from serving him as it should, and as his interests require. To provide the citizen with this understanding in terms suited to his easy comprehension is the function of an industry's public relations department—as outlined in an address (briefly summarized in our news pages) by George Kelly, Pullman vice-president. This realistic view of public relations needs telling and re-telling until everybody in business understands it. The functioning of the various departments of an enterprise—which tend to appear uniquely important to departmental people—actually has no meaning except to the extent that it contributes to a product or service which attains public acceptance. Without this public acceptance (which is grounded, not only in excellence, but in public appreciation of the excellence), departmental activities can have no reliable future.

TOO MUCH BUREAUCRACY: The Railroad Retirement Board is spending 39 cents on itself for every dollar it is paying out for unemployment insurance. Such is the warning against excessive administrative costs of "social security" for railroad employees given by P. R. R. Vice-President John Deasy at a meeting of shop crafts employees this week, and reported in our news pages. The railroads and their employees are taxed heavily to provide "social security" for employees, but, then, the board which distributes these benefits turns around and spends a disproportionate amount of this money on itself. Mr. Deasy expressed the opinion that the railroads and their employees would do better for themselves if they would act jointly in seeking legislation on points of mutual concern, rather than tackling the job unilaterally.

INTRODUCING THE IMPROVED DREADNAUGHT END

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RAILWAY AGE

When Should the Railroads Buy?

What to buy, how much to buy and *when* to buy are questions that every industry and business will soon have to answer by *action* if *business* buying of durable goods is to contribute its share to employment in the post-war years. And, for reasons given by *Railway Age* in two recent editorials (October 7, page 537, and October 14, page 575) the volume of buying of durable goods by *business*, including the railroads, will determine whether there will be enough employment. There could be record buying temporarily by the consuming public, and still too little employment. For, in order that there may be during any considerable period enough total construction, production and employment, there must be not only adequate *consumer* buying but also adequate *business* buying of durable goods for use in maintenance, improvement and expansion of plant.

The depression was principally caused by decline of *business* buying of durable goods. It was so prolonged principally because the New Deal adopted policies intended to increase consumer buying, but which, by preventing revival of business *profits*, prevented revival of needed business buying. Similar policies after the war would soon have similar effects. When the railways had net operating income averaging \$1,100 million annually in the eight years ending with 1930, their buying of durable goods averaged almost \$1,600 million. When they had net operating income averaging only \$492 million in the eight years ending with 1938, their buying of durable goods averaged only \$575 million. There was similar experience in almost every large industry devoted to the production of goods or services; hence, the prolongation of the depression.

The railways will have great need in the years immediately ahead to buy equipment and materials for rehabilitation and improvements, and, if traffic is large, for expansion. They could not under peacetime conditions handle satisfactorily and economically with present facilities anywhere near as large a passenger traffic, or as much freight traffic, as they are now handling. And, fortunately, for at least a few years they will have more buying power than ever before.

When, then, should the railways begin buying on a really large scale? The obvious answer seems to be: As soon as sufficient equipment and materials become available, which apparently will be soon after the war with Germany ends. That will be the time when, owing to drastic curtailment of production for war, unemployment will begin to rear its ugly head. That will be the time, therefore, for private enterprise to begin showing that it can and will in peacetime provide adequate construction, production and employment. The development temporarily of large unemployment would be hailed by enemies of private enterprise as proof that private enterprise cannot be relied upon for enough employment and must be supplemented by huge deficit government spending.

Such government spending would increase subsidized competition with the railroads more than with any other industry. It would also greatly increase the difficulty of securing the drastic reduction of federal taxes without which neither the railroads nor any other industry can in future make enough profits to help provide, by its buying of durable goods, its share of adequate total employment. The railroads' federal income taxes this year will be about \$1,300 million; their net operating income (after taxes) only \$1,100 million. Their net operating income must be largely increased if, during the next decade, their buying is to contribute adequately, as it did during the decade following the last war, to the nation's total employment. And drastic reduc-

Efficiency
FOR VICTORY

tion of their federal taxes will be the best means available for increasing their net operating income.

The railways dare not delay increasing their buying until they can learn how much business they are going to have after the war. If they and other large industries did that, they would speedily make the post-war period one of depression and unemployment. To cause prosperity the railroads and other industries must proceed boldly upon the assumption that there is going to be prosperity. If the New Deal wins the election, government policies may prevent lasting prosperity; but, whether the New Deal wins or not, it might be fatal to private enterprise for timid policies of business itself to cause depression.

Land-Grants— Getting the Facts Straight

That highly successful husband-and-wife team of history-book writers, Charles A. and Mary R. Beard, recently turned out a new book—called a Basic History of the United States—which is intended to reach a large number of adult readers whose acquaintance with and interest in the subject has been meager. To make it as easy as possible to reach such readers, the publishers have placed this new book widely on sale in chain stores and similar outlets where new serious books are seldom marketed, and have priced it at 69 cents.

The Beards, over a long period of years, have won substantial reputations as skillful craftsmen and as persuasive advocates of what sometimes is called the "new" approach to history—with its emphasis on the so-called fundamentals, the broad trends in the social, economic, political and spiritual development of a people, its "liberal" viewpoints, and its tendency to subordinate dates and names and chronology. Whatever rhetoric the historian may indulge in when he undertakes to inform, or to influence, the popular mind, it would seem to be axiomatic that he should present facts fairly, and derive them from the most authorita-

tive sources available. On behalf of the historical profession it has been said that, when it comes to source material, much that should be utilized is unavailable. (An article in *Railway Age* of February 26, page 416, set forth this viewpoint, and some of the unfortunate and far-reaching consequences of such a condition.) But when the material is accessible, surely the historian is under obligation to examine it and to use it to the extent that it contributes to the truth.

With this in mind, it is instructive to examine the Beards' new book. Even a casual thumbing of its pages is likely to discover (on page 283) a map of the United States which, according to the caption, represents lands granted by the government to railways between 1850 and 1871. The source of this map is not stated, but its striking similarity to one distributed by the General Land Office of the federal government suggests that, directly or indirectly, it was derived from that map. By means of stippled bands crossing various western and southern states, the impression is conveyed that large proportions of the total areas of most of these states were granted to the railroads *in toto*—about 60 per cent of Oregon, 63 per cent of Minnesota, and no less than 90 per cent of Iowa, for example—and there is no explanation with the map, or in the text, of what these bands actually represent.

There is nothing to indicate that the railroads got alternate sections of land only, not the entire areas within the limits of the grants; nothing to show that the limits on the map are not strictly those of the strips within which alternate sections were granted, but are apparently the bounds of the much wider "indemnity limits," within which the grantees could make up their allotments when portions of the actual grants had already been taken up by others; nothing to suggest that they include grants not only to the railroads, but also to wagon roads; and nothing to distinguish lands that were forfeited from those actually patented by the grantees. The result is, the reader is bound to get from this presentation a completely distorted idea of the acreage of public land the railroads obtained—*quid pro quo*—from the federal government.

The extent of this distortion is indicated in the accompanying tabulation, in which parallel columns set forth the acreage in each state actually received by the railroads from the public domain, according to the General Land Office, and the approximate area which the map the Beards used would lead the reader to believe the railroads got. The overall error is in the neighborhood of 370 per cent.

These Land Office figures are, and have been, freely available (for example, in *Information Bulletin*, 1939 series, No. 5). The railroads are concerned in having public opinion accurately informed about land-grants, of course, but the historians, having undertaken the responsibility of recording and disseminating and interpreting information for the molding of public opinion, are concerned, too. The question arises: How can public opinion about public policy toward the issues

Actual Land-Grants vs. Those Shown on Land Office Map
Indicated on map Actual grants

State	Acreage (approximate)	Per cent of state area	Acreage	Per cent of state area
Alabama	13,311,000	40.0	2,850,555	8.6
Arizona	18,233,000	25.0	8,369,421	11.5
Arkansas	7,851,000	23.0	2,620,011	7.7
California	38,498,000	38.0	11,458,212	11.3
Colorado	14,636,000	22.0	4,150,461	6.2
Florida	9,387,000	25.0	2,226,267	5.9
Idaho	4,295,000	8.0	1,389,668	2.6
Illinois	10,880,000	30.0	2,595,133	7.2
Indiana	931,000	4.0	0	0.0
Iowa	32,341,000	90.0	4,021,105	11.2
Kansas	26,291,000	50.0	8,244,469	15.7
Louisiana	17,074,000	55.0	1,328,134	4.3
Michigan	22,264,000	60.0	3,129,297	8.4
Minnesota	34,144,000	63.0	9,977,189	18.4
Mississippi	6,598,000	22.0	1,075,345	3.6
Missouri	8,886,000	20.0	2,299,540	5.2
Montana	37,631,000	40.0	15,160,787	16.1
Nebraska	23,318,000	47.0	7,343,900	14.8
Nevada	17,002,000	24.0	5,049,914	7.1
New Mexico	23,546,000	30.0	5,514,132	4.5
North Dakota	24,028,000	53.0	11,036,174	24.3
Oregon	18,566,000	30.0	3,611,751	5.8
South Dakota	497,000	1.0	0	0.0
Utah	10,879,000	20.0	2,195,729	4.0
Washington	31,411,000	71.0	8,264,239	18.7
Wisconsin	11,482,000	32.0	3,707,504	10.3
Wyoming	20,679,000	33.0	4,845,052	7.7
Total, 27 states	484,659,000	34.8	130,463,989	9.4

involved in the land-grant question, or other questions affecting the fate of private institutions in some degree, be objectively determined unless those who do undertake these responsibilities fulfill their obligation to set the facts forth fairly?

Railroad Smoke—

Nuisance or Menace?

In planning for particular railway activities and objectives after the war, both railroads and locomotive designers may well give more emphasis to smoke prevention. The general public undoubtedly will refuse to tolerate in the future smoke conditions now more or less charged against intensified war effort.

No argument whatever is required to establish the urgent desirability of reducing railroad smoke. All that is needed is unbiased observation of present smoke conditions and what is being said about them. Passengers are quite well protected in modern air-conditioned cars, but those forced to use older equipment with poorly fitted windows, or with doors and windows open on exceptionally hot days, are loud in complaining about the discomforts to which they are subjected. The general public along the right of way, of course, suffers whenever trains pass which emit excessive amounts of smoke and cinders to the detriment of real estate values, to say nothing about the housewife's wash.

This is not to overlook the considerable progress made in the past decade in reducing locomotive smoke, thanks to intensive efforts of individual railroads as well as the effective work of the Smoke Prevention Association of America. In addressing this association at a meeting in Detroit, Mich., last June, and looking ahead to future requirements, John Bjorkholm, superintendent of motive power, Chicago, Milwaukee, St. Paul & Pacific, said, "Any progressive and wide-awake railroad management realizes, for reasons both civic and economic, that the days when an abundance of black smoke escaped from locomotive stacks, powerhouse chimneys, or roundhouse smoke jacks, belong to a careless past and that proper supervisory and educational efforts to eliminate unneces-

sary smoke must be a part of modern railroad operation."

Practically all railroads contribute to the smoke nuisance except on those portions of their lines which may be electrified. Manufacturers of Diesel as well as steam locomotives are more or less confronted with the problem for, while steam power is the primary offender in making heavy smoke, the exhaust gases from Diesel locomotives are not without nuisance qualities. Almost every railway department influences locomotive smoke in one way or another. Executive and purchasing officers, for example, decide what kind of fuel shall be purchased. Mechanical officers specify details of locomotive construction designed to minimize smoke. Operating officers have control of road conditions which may be conducive to making smoke or the reverse. The engineering department designs and installs smoke jacks and smoke disposal systems at enginehouses, as well as train-shed smoke slots under which locomotive stacks are supposed to be, but not always are, spotted.

As in safety-first work, smoke prevention cuts across almost all departments and involves a campaign of education in smoke-prevention methods and in appreciation of the urgent need for improvement of this condition. Past accomplishments of the railroads in smoke prevention have been brought about largely by improved fuel, better methods of burning the fuel and particular emphasis to seeing that the human element is properly instructed and encouraged to do its part. This constructive work must be resumed as soon as possible in the interests of public esteem.

If You Believe All You Read About Transportation—2



Recover Used Lumber

Almost from the beginning of the railways, lumber in all of its forms has been one of the lowest-priced materials that they have purchased for both construction and maintenance, and those roads that were located in forested areas have been particularly fortunate with respect to both cost and supply. As a result of the ease with which most roads have been able to obtain lumber and construction timbers, the great majority of railway bridges and buildings have been of frame construction, so that vast quantities of lumber are required for their maintenance, extension, alteration or improvement. In addition, because of its resistance to destruction by locomotive and industrial gases, wood has been used widely for constructing the roofs of many otherwise permanent buildings. For the same reasons, many maintenance officers have grown to look upon the supply of lumber as inexhaustible and, because of its low price, have considered that there has been little economic justification for a special effort to salvage for re-use those members of bridges and buildings that were being replaced or abandoned.

Formerly, when a building was to be dismantled, it was not uncommon to give it to a wrecking contractor on condition that he would clean up the premises. In other cases, the building was sold for a nominal sum if the purchaser agreed to move it promptly from railway property. Where the structure was dismantled by company forces, about the only salvage was the hardware, sash, the plumbing and lighting equipment.

Today, supervisory officers in particular, and others in general, are beginning to learn the value of second-hand material and how a lack of it affects the maintenance of their structures. At present it is practically impossible to obtain the grades of construction timbers and lumber that until recently could be obtained without difficulty, so that not a few bridge structures cannot be renewed or strengthened because of the lack of the necessary material, and little can be done except to drive piles and put in temporary caps to provide the required strength.

The situation now confronting them should make a lasting impression on those officers who have not appreciated the value of second-hand timber and lumber released from both bridges and buildings, but have consigned large quantities of both to the fire.

Only a few of the members released from heavy structures cannot be salvaged in whole or in part. In some instances only a small area of the timber will show evidence of decay. This portion can be cut off and the shortened piece used for a wide variety of purposes. If no place is found where it can be used in its original cross-sectional dimensions, it can be sawed into smaller sizes. In fact, this is already an established practice on a number of roads, and a few roads have adopted the added practice of sending the cut second-hand material to the treating plant for treatment with creosote, or with one of the preservative salts where clean treatment is desired.

If there are those who do not yet appreciate the desirability of saving every piece of usable lumber that can be recovered, it will be well for them to reflect on the prospect for the availability of lumber and construction timbers in the future. Railway stocks are exhausted; the stocks in local lumber yards have been depleted to the vanishing point, and cannot be replenished for several years; and there is certain to be a marked revival in home building as soon as the present restrictions on such construction are removed. It appears quite likely, therefore, that the recovery of usable second-hand material will be in future an important factor in eking out an inadequate supply.

Safety Promotion Pays

Consistent and well-directed educational work is bound to bear fruit in accident prevention. L. G. Bentley, general safety agent of the Chesapeake & Ohio, in a message to the safety committeemen of that system, points out that in spite of the tremendous increase in freight and passenger traffic and the thousands of new workers, the number of employees injured on that system in 1943 was .011 per million net ton-miles; this compares with .045 in 1928, a year of peace and normal conditions.

A study of the causes of accidents responsible for the death of 51 employees on duty for the two and a half years ended June 30, 1944, shows that 27, or well over half, were caused by being struck or run over by locomotives or cars, or by falling from locomotives or cars. Ten more, or another 20 per cent, were due to head-end and rear-end collisions. These accidents were mostly due to disregard of operating rules or to carelessness, as were a considerable proportion of the 14 deaths due to other causes; the largest number due to a single cause in this latter group was four deaths in motor car accidents.

In appealing to the committeemen Mr. Bentley presents the facts clearly, and strongly emphasizes the necessity of fidelity on the part of the committeemen in correcting and reporting dangerous acts. Such reports will not be used to the detriment of employees, but rather entirely in a constructive way, in the effort to improve safety practices. In driving home this point he makes this challenging statement: "Think, I beg of you, if you are passing your neighbor's home and found it threatened by fire or robbery! What would you do? Would you warn him and help save his home? Certainly you would, and feel happy in doing so. Well, if his home burned it could be restored. Not so his body. Many of us who would sacrifice to the limit to save the home are not using our influence to protect our fellow men from accidental harm."

There are times when it is well to appeal to the emotions in stimulating greater energy and effort to the prevention of accidents and the saving of life and limb.

What Kind of Repair Facilities for Diesel Locomotives?

Job of maintaining Diesel-electric motive-power has passed through the experimental stage and long-time programs are now needed

By P. H. Hatch,

Mechanical Engineer, New York, New Haven & Hartford

ORIGINALLY, Diesel-electric locomotives were purchased and applied to railroad work more or less as individual units and not as classes of motive power superseding the existing types. Hence their servicing, inspection and repairs were on a special basis and handled by special crews. Reliance in large degree was placed on the manufacturers as to methods, tools and materials to be used as well as for general supervision. The entire application had an experimental air about it so that such items as permanent organizations, adequate stores, effective facilities, etc., were given little attention beyond the requirements for day-by-day operation. Such things as long-term maintenance programs and backshop repairs or overhauls were hardly considered. In short, the new locomotives were superimposed on the existing motive power picture and left to prove their worth. They were fortunate indeed if they arrived on a railroad having had experience with gas-electric rail cars or electric locomotives, particularly the latter, since basically Diesel-electric locomotives are electric locomotives with self-contained power plants.

This state of affairs lasted only during the early stages of Diesel-electric application. As soon as any railroad acquired an appreciable number of Diesel-electric locomotives, the necessities of servicing and maintenance facilities became important for the very sufficient reason that the railroad could not afford to waste valuable service hours which could be saved by an investment in such facilities.

To cite an example, it was no longer economical to have a fleet of Diesel switchers meet highway tank wagons for fueling, though this could be tolerated when necessary where one or two locomotives were involved. Terminal fuel and associated facilities were required and were quickly installed.

Locomotive Terminals

Regarding facilities for running and backshop repairs, much the same situation prevailed. At first, existing facilities, whether suitable or not for Diesel-electric locomotives were used with the addition of the bare necessities. Then as additional units of this type were purchased, it became necessary to furnish efficient means for maintaining the locomotives as Diesel-electric locomotives and not as adjuncts of other types of equipment.

The following, therefore, outlines the more important

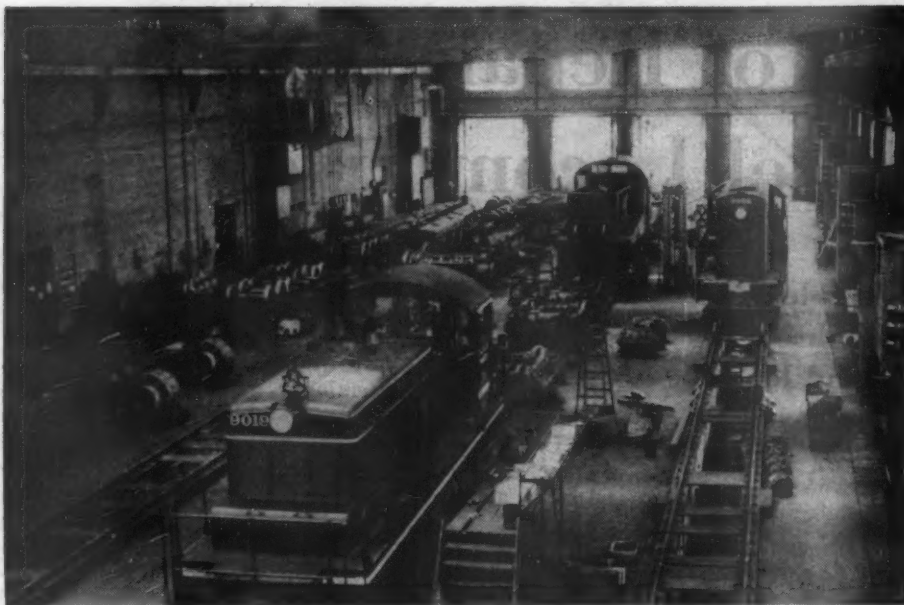
items of facilities and methods used for maintaining Diesel-electric locomotives at locomotive terminals and at backshops. There are two classes of work to be done at locomotive terminals. One is routine servicing, the other is regular or periodic attention. Included in the first is fueling, watering, sanding, addition of lubrication oil, I. C. C. daily inspection and general check of condition of Diesel-engine or engines, electrical equipment, mechanical parts, air brakes, safety appliances, etc., all of which is necessary to release the locomotive for its next run in road service or tour of duty in switching service. Included in the second is periodic inspection and maintenance, I. C. C. monthly and annual inspections, and all repairs or replacements of parts required as the result of continued operation or failures in service.

The principal facilities required for routine servicing consist of fuel oil storage and disbursing equipment, water filling connections, sand towers, lubricating-oil storage, heating and disbursing equipment, source of steam for keeping locomotives from freezing in winter weather or for thawing purposes, a pit or pits suitably lighted for running-gear and underneath inspection and, last but not least, a shed, house or covered area where this work can be done protected from the weather. This latter provision is, of course, not an absolute requirement but it will go far toward increasing the efficiency of the forces handling locomotives for turnarounds.

Inspection and Maintenance Facilities

The principal facilities required for regular inspection and maintenance include a suitable building accessible both by rail and street or highway, tracks with deep, well-drained and well-lighted pits, traveling crane, jib cranes, drop table, locomotive hoist or high-speed power jacks for trucks and wheel changes, wheel lathe, wheel press, small machine shop including toolroom and containing such items as lathe, drill press, milling machine, grinding wheel, cylinder-head valve seat and valve grinder, etc., electrical repair room including simple electrical testing equipment as, for example, high potential test outfit, Megger tester, ohmmeter, bell box, etc., combined air-brake and piping room including facilities for air-brake apparatus testing and repair, also nozzle or injector testing outfit and means for mounting and driving Diesel-engine governors for adjustment, simple sheet-metal tools and electric and acetylene welding equipment. Other facilities should possibly include a few items of blacksmith equipment, lubricating-oil reclaiming apparatus, locomotive washing provisions, battery-charging equipment, including charging lines and outlets, ample provision for storing and disbursing spare parts and the usual offices, locker rooms, showers and toilet facilities for the convenience of personnel.

The foregoing is based on the complete facilities required for a large Diesel-electric locomotive terminal, assuming that there is nothing to start with and everything is installed new. In nearly all cases, railroads have available in or around existing terminals or shops more or less of the equipment listed and it is a problem of regrouping or rearranging such items of these facilities as



The Number of Units and Character of Power Determine the Type of Shop Most Desirable

are necessary, or else of sending the locomotives to different nearby points for the work required. While this latter is often the procedure, it is frequently not the most efficient and in many cases money and time might be saved by the installation of a terminal exclusively for Diesel-electric motive power.

Taking up various items one by one, the following general factors should be considered in planning such a terminal:

The Building—It should be well ventilated, arranged to take full advantage of daylight without the glare of direct sunlight, and should be well lighted at night with a minimum of shadow. It must be designed for the headroom required for cranes or hoists and, if at all possible, should have tracks running through it and not stub-ended so equipment does not have to be jockeyed around to accommodate incoming and outgoing moves. The necessary outlets or connections for portable lights, welders, air, etc., should be provided and the interior should be adequately and uniformly heated in winter. If Diesel engines are to be run indoors, suitable roof ventilation or smoke jacks should be installed.

As mentioned previously, track pits should be deep, well drained and well lighted; the depth should be 54 in. to 60 in. from the top of the rail. It is also desirable at least at some tracks to drop the floor level along the pits and run the rails on I beams or wood stringers from 12 in. to 15 in. above the floor to facilitate truck work, changing of brake shoes and general accessibility of the under part of the locomotives at the sides. Incidentally, it is far preferable to have a pit deeper than actually necessary at all times for it is always possible to provide boxes or staging to stand on if required to reach certain parts of the locomotives. A pit which is too shallow is a constant source of annoyance and an invitation to inefficiency.

Hoisting and Lifting Equipment—An overhead crane of moderate capacity is very convenient for lifting items of equipment on the locomotives out through the roof, as for example, cylinder heads, pistons, liners, blowers, super-chargers, compressors, electrical apparatus, etc., but by reason of additional headroom and structural supports required may increase the building cost materially. Probably the best and most economical scheme is a series

of jib cranes located in various places throughout the shop. The principal restrictions involved with jib cranes is a limited area of coverage and a limited lifting capacity. This is usually in the neighborhood of three to four tons maximum. A compromise between an overhead crane and a battery of jib cranes might be a floor-controlled monorail hoist.

For the larger job of removing trucks from under locomotives several methods are available. One is overhead cranes and another is a locomotive hoist for lifting the locomotive so either or both trucks can be rolled out. This is usually an expensive installation though it is a time saver if both trucks have to be removed at the same time. In this connection

some railroads have converted existing hoists formerly used for steam locomotives so they can be used for Diesel-electric locomotives by removing the cross members and installing special brackets on each side.

A variation of this same method is power-operated jacks with a suitable foundation on which they can be placed to lift the locomotive. This is probably the least expensive method but it is subject to the inherent limitations of jacking and supporting when heavy weights and fairly appreciable heights are involved.

Probably the best all-around arrangement if an entirely new installation is to be made is a drop table large enough to accommodate a complete truck and arranged to serve two or more tracks. This results in maximum flexibility, is comparatively reasonable in cost and does not involve building complications. If desirable, by a suitable cradle arrangement it can be used for removal of a single wheel-and-axle assembly or a wheel-and-axle assembly including a traction motor.

Machine Shop—Aside from the usual quota of machine tools of the type already mentioned the most important single item is a wheel lathe of such size and capacity that it can accommodate a complete wheel, axle, gear and roller-bearing assembly to keep dismantling to a minimum. A wheel press, in addition, will permit changing as well as turning wheels so all of the necessary wheel work may be concentrated at the one point.

Electrical Repair Room—This should consist principally of a clean, dry room with work benches, vises, shelves, etc., for making simple repairs and adjustments to locomotive electrical equipment. Usually the most satisfactory results are obtained by outright replacement of integral items such as reversers, contactors, relays, resistors and small auxiliary motors, but circumstances sometimes necessitate repair of the item involved rather than replacement. In such an event a suitable electrical shop is a requirement. In addition to the conventional testing equipment already noted, it may be found desirable to include a small motor-generator set for furnishing d.c. power at various voltages for relay and regulator testing.

In the event that train-control or cab-signal equipment is used on the locomotive, the necessary maintenance and testing facilities should be added.

Air-Brake and Piping Room—This can combine the usual tools and facilities needed for repairs and testing of air-brake equipment with the few items necessary for steam, air, water and oil line repairs on locomotives. It has been found logical also to include certain specialized Diesel engine accessory repairs with air-brake work so that the air-brake room should also contain facilities for fuel-injection equipment cleaning and testing and for Diesel-engine governor overhaul and testing. It should be emphasized here that repairs to fuel-injection equipment—pumps and nozzles as separate items or combined as injectors, so-called—are not recommended except with special equipment and highly-trained personnel. Usually the manufacturer is in better position to handle anything beyond cleaning and testing of apparatus of this nature.

Sheet Metal, Welding and Blacksmith Facilities—Tools required for sheet-metal repairs are only those necessary for minor repair work on the locomotives, including maintenance of water and oil radiators.

Equipment for electric welding, either in the form of one or more portable welders or a stationary welding set with a number of outlets around the shop is a highly important item for a Diesel-electric locomotive repair point. Equally so are means for acetylene welding and burning and in this case portable outlets are convenient.

As to blacksmith facilities, these can be made as simple as desired since the acetylene torch can be made to do for most bending and straightening of a minor nature such as work on handholes, steps, brackets, clamps, brake-rigging parts, etc.

Several anvils and means for heating such locomotive parts, in many cases, however, may be of considerable assistance.

Lubricating Oil Reclaimer—For Diesel-electric operation on any large scale, reclamation of lubricating oil is highly important since it permits reconditioning of Diesel engine crankcase oil to the equivalent of new oil and at a fraction of the cost. The reclaimer thus prevents waste and provides the maximum of utilization of the oil. In connection with the reclaimer a system of storage tanks for new and reclaimed oil with pump and heating provisions should be installed.

Incidentally, a viscosity measuring device for field determination of this important quality of crankcase oil is very useful in ascertaining quickly and easily in advance of a regular laboratory analysis whether the crankcase oil in an engine should be drained immediately or is satisfactory to continue in service until the locomotive is next in the shop.

Washing Machine—Since provision must be made for exterior washing of Diesel-electric locomotives, particularly those used in road service, a washing machine is worth considering if the number of locomotives justifies it. In any event, a location for washing by machine or manual means must be provided with water supply and adequate drainage. In connection with the general subject of washing, means should also be provided for tanks or vats for removing carbon, oil or grease from Diesel engine and locomotive parts.

Battery Charging Equipment—This is necessary to take care of batteries coming in on locomotives which by reason of characteristics of service or failure of locomotive charging equipment are in need of charging. Hence, the facilities at the repair point should be capable of high rate charging for short periods or low-rate charging for long periods, the former being used to bring back discharged batteries quickly and the latter to equalize gravity by means of an extended charge.

Storehouse and Stores—As in the case of the main shop building, the location of the storehouse facilities

should be accessible for both rail and highway deliveries or shipments and provision should be made for proper and convenient storage of large as well as small parts. There is no single facility which can be provided that will do more to assist generally in efficient repair work on Diesel-electric equipment than a well arranged storehouse with adequate stores.

Two Schools of Thought on General Repairs

There are today two schools of thought concerning the necessity for so-called back shopping of Diesel-electric locomotives, or in other words, for general repairs to this type of motive power. There are those who maintain that by progressive or distributed use of unit replacement during the life of the locomotives, the need for back shopping can be eliminated together with the excess out-of-service time and expense that may be involved in backshop repairs. There are others who believe that an integrated system of general repairs at definite periods is desirable, which points to the need for a backshop program.

While the answer to the question depends primarily on locomotive design and arrangement, and on the policy of the individual railroads, there are certain general factors which apply to either system.

The first and foremost of these is that from time to time in the life of any Diesel-electric locomotive certain apparatus will require major repairs or replacements beyond the normal routine of current maintenance. For example, Diesel engine crankshafts will have to be reconditioned or renewed occasionally and this will require either engine replacement or engine dismantling and rebuilding. Similarly, main generators and traction motors will require dipping and baking at certain intervals, depending on service, also renewal of commutators and rewinding. Most repairs of this nature require special facilities which, on account of their size and expense, are usually concentrated at one or two points on a railroad. Hence, either the locomotives must be moved to these points or else the integral items of equipment must be sent there and others installed in the locomotives where they are customarily maintained which may entail extra forces and equipment.

A second factor is that a railroad may desire to install a Diesel locomotive repair shop at a terminal combining both terminal and general repair facilities. This, of course, depends on the geographical and operating characteristics of the railroad involved.

A third factor is the extent to which some railroads already have shops equipped with facilities of the general type required for Diesel-electric locomotives. Cases in point are those railroads which already are maintaining electric locomotives or multiple-unit equipment.

A fourth factor is dependence on the manufacturers for replacement or reconditioning of major items of equipment. Here again geographical and policy considerations apply.

In Event of Extensive Repairs

For that class of repairs, therefore, that are heavier and more extensive than the regular inspection and maintenance and which a railroad desires to undertake without particular reliance on the manufacturers, there are two choices available:

(a) Start out new and install the necessary plant and equipment in which case the shop and facilities described under the heading "Locomotive Terminals" need only be enlarged to the extent necessary to include the additional tools and equipment;

(b) Equip existing shop or shops to handle the work by installing what additional tools and equipment are not already available.

Lifting Facilities for the General Repair Shop—In the following such *additional* tools and equipment will be briefly described and comments included as to their application under either alternate.

For better flexibility in use of shop space, overhead cranes for lifting and moving locomotive cabs are desirable though, if the number of locomotives involved is small, a locomotive hoist or a drop table can be made to serve. In the case of the new shop, the addition of overhead cranes would eliminate the necessity for other means for handling truck removals and would, in addition, provide for lifting out Diesel engines or Diesel engine generator sets. As for existing shops, these are usually equipped with overhead cranes and nothing additional would be required.

While on the subject of lifting apparatus, the liberal use of jib cranes strategically located throughout the shop area is recommended to take care of various classes of work requiring more or less continual light lifting attention in order to avoid tying up the main traveling cranes on small jobs. This has already been mentioned in connection with the new shop and existing shops can and should be similarly equipped if Diesel-electric work is to be added.

Presumably the new shop would be constructed solely for the use of Diesel-electric locomotives, in which case the Diesel engine work can be located where most convenient. In the case of existing shops, however, selecting the location for Diesel engine repair work presents a real and a very important problem, particularly if steam locomotive or car repairs must also be handled, for cleanliness and freedom from dust, dirt, chips, smoke, steam, etc., is an absolute requirement for Diesel engine repairs if the best results are to be obtained. It takes no imagination to picture the consequences of subjecting highly polished surfaces or parts operating with clearances as small as half a thousandth of an inch to liberal doses of dust or moisture. Hence every consideration should be given to complete segregation of Diesel engine work, so far as possible, from the rest of the shop.

Machine Tools Needed—Machine tool equipment for either new or existing shops should be equipped with the small items already mentioned for the terminal repair shop, including a wheel lathe, a wheel press and a lathe large enough to handle axles, in order to take care of all wheel, axle and gear work at the one point. This would be additional equipment for the new shop, but in all probability in existing shops would be already available as would other desirable though not necessarily required items of heavy machinery.

Depending entirely on the number of locomotives to be maintained and the extent to which repairs of a fundamental nature are to be undertaken, a crankshaft grinding machine and a heavy-duty cylinder-liner honing machine or grinder may be required. At the present time, however, it is generally felt that a machine large enough to grind crankshaft journals and pins is more in the manufacturers' province if only on account of the large investment required and the relatively small volume of work. In this connection, a small grinding machine for armature shafts, water pump shafts, etc., would very probably be worth serious consideration. As to the honing machine or grinder for cylinder liners, this might be desirable for reconditioning work if warranted by volume. It is apparent that special items of this nature would have to be considered for either new or old shops since it is unlikely that the latter would include them.

Facilities for Electrical Repairs—Unless a railroad is already maintaining electric traction equipment, the facilities for heavy electrical repairs must be considered in relation to either new or existing shop and in relation to the manufacturers, since in this case also the investment involved is large and requires volume of work for its justification. Assuming, however, that it is desired to become more or less self-sustaining the following will be needed in addition to the smaller items already listed for the terminal repair points: a banding lathe for replacing loose bands on general or traction-motor armatures and for banding rewound armatures is a requirement. Usually the necessary wire-band reels and tension-applying apparatus can be installed on an existing lathe. Also a lathe with a fixture for commutator slotting is desirable if this operation is to be handled conveniently and quickly.

A dipping tank for generator and traction-motor armatures and fields with accurately controlled heating equipment for maintaining insulating varnish in the desired temperature range should be installed. A dipping tank maintained at atmospheric pressure can be used but better impregnation results if a pressure or vacuum tank is used. Together with the dipping tank is required a baking oven, also with accurate control of temperature for thorough drying of apparatus which has been dipped. Incidentally, such an oven is of great assistance in drying out electrical equipment that has been flooded or has been standing around exposed to moisture.

While a lathe can be utilized for generator commutator turning, modern traction-motor commutators should be spun and ground under operating temperature conditions to obtain longest life. Turning on a lathe can be used in the absence of spinning and grinding equipment but if there is to be any volume of work involved, the latter is definitely recommended.

Dynamic Balancing Machine

Another machine which should receive consideration if modern equipment in large quantity is to be taken care of is a dynamic balancing machine. This is a practical necessity for high-speed equipment and, in addition to its use for armatures of generators and motors, it can be used for balancing various other rotating parts, such as blower rotors, fan runners, pulleys, shafts, etc.

If winding of electrical machinery is to be undertaken then the usual assortment of benches, stands, brazing and soldering apparatus and other items of miscellaneous associated equipment must be provided.

A full quota of power wrenches, pinion pullers, wooden cradles, small ovens for heating pinions and roller-bearing races, etc., is a necessity for any general dismantling of motors and generators in connection with repairs or replacements.

For such items of electrical equipment as contactors, reversers, relays, motors, etc., it is well to discourage local repairs or testing and to depend instead on unit replacements. The headquarters for general repairs, therefore, must be equipped with the necessary facilities for repairing apparatus thus changed out. These are usually relatively simple and consist for the most part of work benches with vises, miscellaneous tools for dismantling and reassembling and simple test equipment to know the required apparatus is in proper working order, adjustment or calibration.

If welding of Diesel-engine cylinder heads or other parts is to be attempted, either on account of wear or cracks developing in service, then an oil- or gas-fired

(Continued on page 622)

Santa Fe Improves Coast Lines

Extensive construction program is required by necessity of achieving a substantial increase in line capacity to handle traffic load imposed by war-time conditions

PART II



Map of That Part of the Coast Lines West of Barstow, Showing the San Diego and San Francisco Lines

COMPRISING a portion of the Los Angeles division of the Coast Lines, the San Diego line, which is largely single track, connects with the southerly route between San Bernardino, Calif., and Los Angeles at Fullerton, from which point it extends in a southerly direction along the coast to San Diego, a distance of 103 miles. A considerable portion of the traffic handled on this line comes from the east over the main line from San Bernardino, and trains handling this traffic obtain access to the San Diego line by means of a cut-off connecting with the main line at Atwood, five miles east of Fullerton, and with the San Diego line eight miles south of that point.

Previous to the recent improvements, train operation on the San Diego line was by time table and train orders, supplemented by automatic block signal protection. The heaviest grades on the line are encountered a few miles north of San Diego where it traverses a rugged range of hills necessitating ruling grades of 2.2 per cent in each direction, with the summit in the vicinity of Linda Vista, 14½ miles north of San Diego. Elsewhere the maximum ruling grade is about 1.2 per cent. Originally, the alignment embodied considerable curvature of a restricting nature, but much of this was eliminated in a curve-reduc-

tion program that was completed in 1941, the purpose of which was to permit a shortening of 15 min. in the passenger-train time between Los Angeles and San Diego. However, considerable excessive curvature remained in the vicinity of Linda Vista. The passing tracks on the line had a maximum capacity of 72 cars, although generally the capacity of the sidings was considerably less than this figure.

Prior to the war, freight traffic on the San Diego line consisted to a considerable extent of perishable produce which, originating at various points along the line, was assembled into trainload lots at concentration points for movement north to the main line and thence eastward. The war, however, brought an entirely new set of operating conditions. Existing military installations at San Diego and along the line underwent a rapid expansion and new ones were added, while, at the same time, a process of rapid industrialization of the San Diego area was taking place. These developments resulted in such an increase in traffic over the line as to tax its capacity. With the number of trains operated approaching an average of 50 a day, it was evident that measures would have to be taken to relieve the congestion, which was especially acute in the mountainous region in the vicinity of Linda Vista.

Decides on CTC System

It was decided that the necessary increase in capacity could best be achieved by installing a centralized traffic control system throughout the length of the line, and by the provision of a considerable amount of additional trackage, principally in the form of sections of second track at critical points and of extensions to existing passing sidings to permit the operation of longer trains and to allow meets to be made with minimum loss of time and, in some instances, without stopping either train.

As described in Part I of this article, the improvement program included the construction of about 16 miles of second track on the line between Los Angeles and Fullerton, which not only forms part of the southerly route between Los Angeles and San Bernardino but which also handles traffic moving between Los Angeles and San Diego. As a result, the 18-mile section of line between Hobart yard, seven miles south of Los Angeles, and Fullerton, is now double track with the exception of a two-mile section of single track about 13 miles north of Fullerton. Actually, the CTC system that was installed on the San Diego line extends north of Fullerton to control the power switches at both ends of the section of single track. The total length of line on which CTC was installed is about 117 miles.

Two control towers are incorporated in the CTC system, one at Fullerton, and the other at Oceanside, which is 61 miles south of the former point. The tower at Fullerton, which controls 38 miles of line, embodies 80 work-

Part I of this article, published last week, described the Coast Lines of the Santa Fe, including their relationship to the system as a whole; gave figures to show the extent of the increase in traffic that has occurred since the outbreak of war; outlined the improvement program that has been undertaken for the purpose of providing the necessary additional capacity to handle the increased traffic; and described in detail that phase of the program pertaining to the main line between Belen, N. M., and Los Angeles. Part II describes the improvements made on the line extending from Fullerton, Calif., to San Diego, and also on the Valley division which comprises the major portion of the line serving the San Francisco Bay area. This section also discusses certain incidental phases of the program, including the changes in water-service facilities that have been necessary as a result of the larger volume of business handled.

ing levers for 29 switches, 38 electric locks and 68 signals, while that at Oceanside, controlling 79 miles of line, has 131 levers for 43 switches, 47 electric locks and 114 signals.

Second Tracking

The track work that was carried out on the San Diego line included double track in the vicinity of Linda Vista, where the provision of a second track was the means adopted to overcome the congestion occasioned by the heavy grades. At this location 3.3 miles of second track were built and incorporated with existing sidings to produce a section of double track 4.4 miles in length between Linda Vista and Elvira. Since this section of the line contained considerable curvature, a line change was effected in connection with the construction of the second track to reduce the curvature and to avoid perpetuating the existing unfavorable alinement. In connection with the installation of the CTC system, the section of double track was signaled for reverse running.



A Line Change on the Santa Fe Near Del Mar, Cal., as a Precaution Against the Cutting Action of the Ocean

The track work included the lengthening of 13 passing tracks and the construction of two new passing tracks, both about 5,000 ft. long. As extended, the 13 tracks range in length from about 4,600 ft. to 6,700 ft. A total of about 41,000 ft. of track was built in connection with the passing track work between Fullerton and San Diego. Other track work included the provision of five additional tracks in the San Diego yard, ranging in length from 1,260 ft. to 1,750 ft.

Work on San Francisco Line

On that part of the Coast Lines which, connecting with the main line at Barstow, extend northward to the San Francisco Bay area, the improvements made included the extension of passing tracks and the enlarging of the principal yards. Between Barstow and Mojave, 72 miles, the improvement work called for lengthening the passing tracks as necessary to permit them to accommodate 90-car trains. From Mojave to a point near Bakersfield, 67 miles, the Santa Fe operates over the Southern Pacific. Part of this line is double track but there is a single-track section 32 miles long between Bena and Tehachapi where the line traverses the Tehachapi mountains. To ameliorate the operating difficulties presented by the single-track section, the Southern Pacific recently installed a centralized traffic control system in this territory and at the same time the passing tracks were extended.

In the territory from Bakersfield northward, which is known as the Valley division, various factors, including the class of motive power in use, limit freight trains to a maximum of about 70 cars. On much of the division the passing tracks were already capable of handling trains of this length. However, on the Third district of the division, which comprises the 93 miles of territory at the northerly end of the line between Riverbank and Richmond (the company's principal terminal on San Francisco Bay), the passing tracks generally were not of sufficient length to handle 70 cars. The program, therefore included the lengthening of the passing tracks in this territory. Those extended are being made sufficiently long to handle 90-car trains, with the thought that eventually passing tracks of this length will be needed. About one-half the passing tracks in this territory are being extended.

Yard improvements are being made at four locations

on the Valley division, namely, at Bakersfield, Riverbank, Mormon (Stockton) and Richmond. The yard at Bakersfield is a division yard which, in addition to handling through trains, originates a large amount of perishable traffic for movement eastward. The work here consists of revamping and extending the yard largely for the purpose of providing longer tracks, that is, tracks capable of accommodating 90-car trains. In this work five tracks are being lengthened. Also five new storage tracks are to be built. As a result, the total capacity of the yard will be increased about 300 cars.

At Riverbank, which is the district terminal yard at the easterly end of the Third district, seven tracks with an average capacity of 62 cars are being extended sufficiently to accommodate from 83 to 96 cars, resulting in an increase of more than 200 cars in the capacity of the yard. Also, a lead track 2,900 ft. long is being built at the east end of the yard. At Mormon, five tracks are to be extended an average of 1,650 ft. to produce tracks capable of handling 90 cars, the total increase in capacity being about 165 cars, and an existing switching lead east of the yard is to be extended about 3,100 ft.

In the yard work on the Valley division the most extensive changes are being made at Richmond where six tracks are being extended an average of about 2,300 ft. to permit them to accommodate from 85 to 100 cars, thereby effecting an increase of about 300 cars in the capacity of the yard. Incident to this track work, it was found necessary to relocate a section of the main line and certain other facilities, including the combination passenger and freight station. Prior to the present program, extensive work had already been carried out at the company's terminal at Richmond for the purpose of providing the additional trackage needed to handle war traffic.

In addition to the yard expansion work on the Coast Line as a whole, as described in this article, storage yards built by the government have been provided at a number of locations for handling government loads exclusively, including yards with a capacity of 500 cars each at Richmond, Riverbank and Wilmington.

Some Contract Labor Is Employed

In carrying out the track work in the present program, many of the turnouts, especially at the larger yards, have been equipped with power-operated switches and incorporated in existing interlockings. Generally, the extended and new passing tracks have No. 10 turnouts, and in double-track territory the turnouts at the leaving ends have spring switches.

In view of the labor shortage, it was inevitable that difficulties should be encountered in carrying out an improvement program of such magnitude. Nevertheless, much of the work has already been completed and it is expected that it will all be finished by the end of this year. All of the grading work is being performed under contract, but the largest part of the track work is being carried out with company forces, although there are certain important exceptions. For instance, a contractor was engaged to perform all the track work on the San Diego line below Fullerton. Before this work was finished, however, the contractor's force was withdrawn and sent to Barstow and San Bernardino to undertake the yard expansion work at these locations, which was considered extremely pressing. The yard work at Needles was also done under contract. The track work was delayed most seriously as a result of the labor shortage, and in most cases the grading and bridge work for specific jobs was completed well in advance of the track work.

Another form of improvement work now in progress on the Coast Lines that is related, at least in part, to the war-inspired increase in traffic, is that involving water-service facilities. Obviously, the growth in traffic has been accompanied by a sharp increase in water consumption. Fortunately, the existing water-service facilities generally had sufficient reserve capacity to permit the output to be stepped up as necessary simply by operating the pumps for a longer period each day, although at a number of locations where the water is supplied by air lift, the existing compressors, generally consisting of two units, have been augmented by a third.

Changes in Water Facilities

However, the problem of storage capacity is a somewhat different story. Even prior to the war, a considerable amount of work had been done in the direction of augmenting such capacity by adding to the height of existing tanks and by installing additional tanks at some locations, which usually have consisted of tanks moved from other locations. This form of activity has continued at an accelerated pace during the war years. Most of the water tanks in existence on the Coast Lines are of the standpipe type, usually 24 ft. in diameter and 45 ft. high.

To increase the capacity of such tanks, the practice is to add 15 ft. to the height, thereby also increasing the head and, consequently, the rate of delivery. In some instances where new tanks have been installed, they have been located adjacent to the water columns to minimize friction losses and to insure maximum delivery. Other measures that have been taken to increase the rate of discharge include the substitution of 16-in. for 12-in. delivery lines, and the replacement of 10-in. spouts with 12-in. units, the latter size now being standard on this railroad.

In common with other roads, the Santa Fe in recent years has been using engine tenders of 25,000 gal. capacity. As a consequence the demand for water has been concentrated at certain terminals, with the result that some intermediate water stations, being no longer needed, were abandoned and the tanks and other equipment moved to locations where there was an increased demand for water. One effect of the increase in traffic incident to the war has been to bring about changes in operating conditions that have made it advisable to re-establish some of the intermediate water stations that had been abandoned.

Water for Diesels

Another water problem recently encountered on the Coast Lines is that involved in furnishing cooling water of the desired degree of purity for the Diesel-electric freight locomotives operating in the territory between Winslow and Barstow where the existing water supplies were not considered satisfactory, even as treated for use by steam locomotives. At present a portion of the requirements for cooling water at Winslow are being supplied by a plant that was formerly used to furnish distilled water for the manufacture of clear ice. The capacity of this plant is about 5,000 gal. daily. In addition, about 8,000 gal. of distilled water are being hauled to this point each day from San Bernardino, where it is furnished by a plant improvised from an old boiler and a condenser. To replace this temporary arrangement, the company is now building a water-distillation plant at Winslow which will have a daily capacity of 20,000 gal., and, in addition, it is planning to build a plant at Barstow which,

with an initial capacity of 4,000 gal. daily, will be capable of future enlargement if this should become necessary.

It has also been necessary to provide extensive facilities for handling, fueling and otherwise servicing the Diesel-electric power. At Winslow a considerable portion of the existing enginehouse was made available for handling such power by providing floor-height platforms in the stalls. Also several additional stalls were provided outside the enginehouse by building platforms between radial tracks leading from the turntable. The fueling facilities built at this point include concrete platforms serving two of the engine tracks, each of which is designed to supply oil and sand to a complete 5,400-hp. locomotive. The fuel-oil facilities include a 55,000-barrel storage tank and a 5,000-barrel delivery tank.

Facilities of a somewhat similar nature have been built at Needles, and work is now under way on a layout at Barstow which will include a new building capable of accommodating six Diesel-electric locomotives. The plan for this facility is so designed that, if desired, it can be expanded in the future to house four additional engines, and to provide machine bays and tracks that will permit the making of heavy repairs to Diesel power. For the present, however, the building will be used only for housing the locomotives in connection with the work of servicing and turning them.

The program of improvements described in this article is being carried out under the general direction of G. W. Harris, chief engineer of the Atchison, Topeka & Santa Fe System, and under the immediate supervision of M. C. Blanchard, chief engineer of the Coast Lines. E. E. McCarty, general manager of the Coast Lines, has been closely identified with the undertaking, especially during the planning phase.

Diesel Repair Facilities

(Continued from page 618)

furnace with pyrometer control is very desirable because the success of the welding depends in large degree on uniformity of heating and careful control of temperature.

Welding and Metal Spraying Equipment Needed—Another maintenance tool of increasing use is a metal spraying outfit for building up worn surfaces of shafts or other parts where a mechanical bonding of the added material to the parent stock is sufficient and where welding cannot be used.

Still another item of potential maintenance value for certain locomotive parts is flame-hardening of wearing surfaces with control of flame and timing. It goes without saying that the preheating furnace, metal-spraying outfit and flame-hardening facilities can be added to the blacksmith equipment of the new shop if desired and to existing shops if not already on hand.

Along with the battery-charging equipment already mentioned, a small battery room for making minor repairs to locomotive storage batteries such as cleaning, transferring elements, re-traying, adjusting of gravity, etc., together with means for charging and discharging at various rates and for maintaining spare batteries in a fully charged condition, should be provided for a new shop and is usually to be found in existing shops of any size. Repairs to batteries beyond the capabilities of facilities such as these it is believed are as a rule best handled by the battery manufacturers at their own plants or service stations.

At definite though rather extended periods, it is neces-

sary to repaint locomotives, and facilities for this are generally available in the larger existing shops. In installing a new shop, however, provision should be made for at least a small paint and glazing room and possibly a booth for the spray painting of complete locomotives. Whether or not the latter is justified is again a question of the number of locomotives involved.

In existing shops carpenter and upholstering facilities are usually available and in setting up a new shop simple tools and supplies for repair work of this nature should be included, probably in combination with other facilities of special or intermittent use.

Testing Facilities Should Be Provided

Finally, in the case of either a new or existing shop for general repairs, testing facilities should be provided in the way of Diesel-engine exhaust-gas pyrometer, maximum pressure indicator, tachometer, rheostat (either water or resistor type) for artificial power-plant loading, electric meters, etc.

From the foregoing it can be seen that for Diesel-electric locomotive maintenance a terminal shop for handling inspections and running repairs including light periodic work and a general repair shop or so-called "back shop" for handling the heavier periodic work are basically similar. The only difference between the two is the extent to which one shop can handle heavy repairs as compared to the other. Putting it another way, any adequately equipped terminal shop can handle heavy repairs with a minimum of additional equipment and conversely, any existing back shop, particularly if it is fitted for handling repairs on electric rolling stock, can quite easily take on Diesel-electric repairs. The reason for this similarity is, of course, that the motive power equipment of a Diesel-electric locomotive is principally an assembly of relatively small, easily replaced parts.

It is also apparent in the descriptions which have been given that they represent a plant to work to and ultimately to complete but that if necessary the facilities mentioned can be obtained and installed progressively as the number of locomotives increases and their age advances. In nearly all instances railroads have facilities already in existence at various points and until the Diesel-electric headquarters are finally completed and centralized, items of locomotive work of various classifications can be farmed out to such facilities.

Central Repair Points Desirable

In conclusion, however, it should be stated that the quicker a central point or points, depending on the size of the railroad, can be set up for Diesel-electric locomotive repairs, the quicker will the best results in the operation of such motive power be obtained.

The same conclusion applies with equal force to maintenance material and spare parts for Diesel-electric equipment. Granted that these must be located at points in the territory where the locomotives operate, nevertheless, some central point or points, again depending on the size of the railroad, for all Diesel-electric stores is very desirable.

This would constitute a supply base for the outside points and in it should be maintained master stock lists and ordering information and a complete supply of all parts in the proper quantities. Also, in cooperation with the maintenance shops and the manufacturers, a system of repair and return can be set up to recondition and reutilize Diesel-engine, locomotive and other parts subject to replacement in service.

Justice Dept. Rate Views Analyzed

Contentions based upon misrepresentation and omission of facts --- Their success would bring serious anti-social consequences

By J. G. Kerr,

Chairman, Southern Freight Association

I SHALL survey the chaos certain to result in the handling of rate revisions and carrier relations with the shippers and public regulatory bodies, should there prevail the efforts of the Department of Justice and the State of Georgia to dissolve the Southern Freight Association and like organizations throughout the country. I include the State of Georgia because of the suit it is seeking to file in the Supreme Court of the United States charging our railroads, among other things, with conspiracy and fraud through the operation of some 60-odd railroad rate bureaus, which in many respects closely follows the program of the Department of Justice. The public press indicates collaboration between officials of the department and the state in these matters.

What Chances for an Impartial Inquiry?

Ordinarily, I might hope that the investigation of our activities now in progress because of Georgia's governor's complaint, if honestly conducted, would put an end to unfounded charges of conspiracy and fraud, but in the light of the testimony presented last year by the Justice Department's witnesses before a Senate Committee, and more recent events, I have my doubts. Please note the following quotations:

On November 12, 1942, Attorney General Biddle issued a public statement in which he said:

"No investigation into or disturbance of the existing normal and established activities of rate bureaus and conferences is contemplated by the department. . . . Any such program at this time would unduly diffuse the activities and energy of the carriers and hence unnecessarily burden them at a time when they are engaged in the difficult and complex task of aiding the government in the prosecution of the war."

The activities of the Department discussed hereafter, have largely taken place since Mr. Biddle made his statement in November, 1942, and are most active right now. I need not remind anybody that the war is not yet over; and that right now we are in a most critical period and transportation still very important. Here is something on the other side of the picture:

"If the rate bureaus and the like had, over their long history, been the source of grave abuse which prejudiced seriously the interests of the shippers, you may be sure that long since there would have been an uprising and that this situation would have been made clear to you by a heavy tide of complaints pouring into the Commission and into the Congress of the United States. If there has been or is such a tide, it has somehow escaped my knowledge. I believe this hearing will demonstrate that such complaint as there is has its source not in the shippers of the country, but in the lawyers and economists of the Department of Justice."

Those are the words the Director of the O. D. T., the late Joseph B. Eastman, whose able public service no one will question, delivered June 15, 1943, before the Senate

Committee on Interstate Commerce, after hearing the testimony of former Assistant Attorney General Thurman Arnold and witnesses of the Department of Justice.

Mr. Eastman during the last year or two before his untimely death—along with high officers of the War and Navy departments and other government bodies—were much worried and much of their valuable time taken up with those vicious and often untruthful attacks of the Department of Justice, which had reached the point where they were seriously interfering with the war effort, so much so that the W. P. B. issued an order granting us immunity during the war, subject to certain supervision by the Interstate Commerce Commission, to which we did not then object nor do we object for the future. Southern carriers, both rail and motor, were never given an opportunity to answer these attacks before the Senate Committee.

I am not going to discuss the merits of the class rate case now pending. I appreciate the existence of honest and sincere differences of opinion on the subject of that dispute. It is before the Commission for adjudication on the evidence and the law. All parties pro and con were fully heard before an impartial body and we should have a considered opinion on ascertained facts and not on emotion nor under political pressure. To refrain from discussion of the merits of the rate case does not excuse the intemperate, inaccurate, misleading statements—which so freely appear in the public press, credited to public officials and some writers—statements damaging to the future of southern industry and agriculture.

How They Count to 60

Let us look at some of the charges of the Department of Justice. At the hearings before the Senate Committee in May and June, 1943, the department's witnesses filed a huge chart designed to show the alleged interlocking character of 60-odd railroad rate bureaus throughout the country. A learned professor from Yale University was engaged to explain it and the procedure, and to expound ideas as to how it should be done.

All of you know there are nothing like 60-odd bureaus. To produce such a number, the department separately counted each committee or sub-bureau, such as our own Standing Rate, Coal and Coke, General Freight, Executive, Contact-Fourth Section Committees, and our two tariff bureaus, all part and parcel of the Southern Freight Association. The Georgia suit contains this same exhibit and somewhat similar charges.

Special Assistant to the Attorney General Wiprud, who is chief of the department's transportation section, and in immediate general charge of these anti-trust proceedings against the railroads, after several years of investigation (so he said, in Chicago, New York, Washington, Atlanta, New Orleans, Kansas City, and Denver) made this statement:

This article is an adaptation of an address to the Southern Traffic League, at Atlanta, September 22.

"In practice, only those rates which such bureaus and conferences permit to be filed with the Commission are subject to Commission review, and then, as we shall see, only a small percentage are finally reviewed." (p. 8)

84 Per Cent of Rates Okayed by I. C. C.

Isn't that an amazing statement when 84 per cent of our rates—either from the standpoint of tons or revenue—have been prescribed or approved by the Commission, and also that 90-odd per cent of the rate changes we voluntarily make represent reductions well within that framework, omitting of course any general percentage increase. And, further, that with few exceptions the rates we do file are quite satisfactory to interested shippers and made after full publicity and conference? Mr. Wiprud then said:

"When a single carrier sees the opportunity to make a profit by lowering rates and increasing its volume of traffic, it is free under the law and should be free in fact to take such action without any veto from the less efficient and more cautious carriers with which it is presumed to be in competition. The private rate bureau or rate making conference substitutes for this freedom of action, which is indispensable to the development of low-cost transportation in the public interest, the restrictions of a committee which makes it difficult, if not impossible, to establish the rate if competitors object." (p. 8)

The program of the department seemingly is that there shall be encouraged secret and unrestrained rate-cutting, cut-throat competition, no publicity until the competing shipper discovers the rates in a tariff, no consideration of the views or rights of competing shippers or railroads, and little or no regard for the 1st, 3rd, and 4th sections of the Interstate Commerce Act, of which the department apparently never heard. In short, shippers (particularly the smaller ones) are to be allowed to find out as best they can what is going on, rate relationships of more importance to shippers than the rates themselves will be disrupted, perhaps bringing chaos and ruin to our producers.

Justice Department Seeks I. C. C.'s Job

As Mr. Eastman expressed it, there would ensue a battle royal of the carriers—and he might well have included the shippers—the Commission relegated to the role of a master of ceremonies; and the big stick in the background, designed to keep the battle royal going, would be the Anti-Trust Act wielded by the Department of Justice. Then we find this statement by Mr. Wiprud:

"Through this machinery (apparently meaning the 60-odd interlocking bureaus) the dominant carriers actually fix transportation rates, compel adherence to such rates, prevent individual carriers from exercising their legal rights to make their own rates, and thus artificially stabilize rates with a resultant restraint upon interstate commerce." (p. 8)

So far as southern roads are concerned—and I speak only of them—there is not one grain of truth in that statement. Mr. Wiprud amplified this statement further by saying:

"by this process of private rate making and control, transportation rates have been forced to an artificially high level without regard to the carriers' costs or to the value of services rendered."

Is it possible that the Justice Department is ignorant of the railroads' revenue results for the decade preceding the present war or the enormous amount of railroad mileage in the hands of the courts? I pass over, but with great reluctance, the attacks upon the Interstate Commerce Commission, although it is clear that this whole program is as much directed against it, as well as a purpose to

usurp the functions delegated by Congress to the Commission.

Keep prominently in mind the Department's conception of some 60-odd interlocking rate bureaus or even the 15 shown for the South when we hear this remarkable statement by Mr. Wiprud:

"Before any rate is filed with the Interstate Commerce Commission, and thereby becomes the 'lawful rate', it must, *with few exceptions*, first find its way through the maze of lower, intermediate, and appellate committees established by the rate associations and conferences." (p. 13)

Here again, there is not a particle of truth in these statements as concerns southern lines, and based upon my knowledge of conditions elsewhere, I know it is not true anywhere. The alleged "maze" of committees is simply an effort to divide our own organization into departments so that the business may be efficiently carried on, in exactly the same way as with any other large organization, private or public. Our set-up is exceedingly simple to anyone who wants to understand and not misrepresent it. It is organization that has made our industry click during this war emergency.

While there is cooperation, the Southern Freight Association is not a part of and takes no orders from the Association of American Railroads or its Traffic Advisory Committee, which the Justice Department claims is the daddy of the 60-odd bureaus. Quite a number of our members are not even members of the A. A. R. Mr. Wiprud says that "with few exceptions" any proposed rate must first find its way through the lower, intermediate and appellate committees. The true situation is actually the reverse.

Most Rate Changes Are Reductions

An analysis of all proposals originating with the Southern Freight Association members during the first three months of 1940 (this being the period agreed to by the Board of Investigation and Research for study) reveals there were 1,220 proposals, of which 1,134 or 90 per cent suggested reductions in rates.

995 or 82 per cent were approved by mail by our lines without ever being reviewed by any committee other than our Standing Rate Committee, and this was accomplished within the usual time limits.

166 or 13 per cent were referred to our General Freight Committee or Coal & Coke Committee, of which 143 were approved as filed or amended, 23 being disapproved.

49 or 4 per cent were referred to our Executive Committee, 46 being approved as filed or amended, and 3 being disapproved.

10 or 1 per cent were referred to our Traffic Executive Association, 6 being approved as filed or amended, and 4 were disapproved.

None was referred to our Southeastern Presidents' Conference.

I leave you to decide whether this record confirms the Justice Department's statement that rate changes must, with few exceptions, find their way through a maze of lower, intermediate and appellate committees, before being filed with the I. C. C.

Skipping over Mr. Wiprud's strange conception of detailed rate procedure, after referring to appeals that may be taken to Traffic Executive Committees, he says:

"In case of unfavorable action by this committee, which is composed of the chief traffic officers of the member lines, a carrier-proponent has a so-called 'right of independent announcement'. This means that it may direct the publishing agent of the association to publish the rate for account of that carrier. Notice is given to all carriers so that any who wish to make a similar change may do so. As a matter of practice, this 'right' is seldom used since few carriers like to antagonize the majority and since the

association or its members may, and probably will, petition the Interstate Commerce Commission for suspension, which involves expensive litigation."

Sleuths Neglect Pertinent Evidence

The fact is that our individual members are free to and do freely exercise their right of independent action. A total of 1,573 separate rate adjustments were so established during the 6-year period ending with 1942, or an average of 262 per year, each covering everything from a single rate or practice to many thousands of rates. The actual number of independent actions greatly exceeded this figure of 1,573. For nearly 3 months I have had 9 different Justice Department agents digging into our records, but so far have not been able to induce one to look at our record of independent announcements. Another thing, the Southern Freight Association never protests to the Commission any rate independently announced by a member line.

It is a strange and indeed tragic thing to me that supposedly responsible officials of the government would so misrepresent the facts to a Committee of Congress. Here is another statement by the same official:

"Our records show that adherence to conference rates has been compelled not only by coercive means inherent in rate-bureau machinery but also by coercive practices such as refusal to interchange traffic with non-conforming carriers, boycotts, intimidation, fomenting of strikes, and the like. By such means, individual rate-making is successfully eliminated and transportation rates artificially fixed and maintained." (p. 14)

The record indicates this was an all-inclusive accusation embracing, so he said, the "entire transportation industry." As concerns southern roads, it would be difficult to find anyone with a knowledge of the facts who would not denounce such a charge as false.

How Honest Is Such a Charge as This?

Here is one more "horrible" example of how bad the Southern Freight Association is in the eyes of the Department. In the Thurman Arnold memorandum of record before the Senate Committee citing "specific examples of the more extreme rate increases emphasizing the critical problem of transportation cost" there appears the following:

"A Southern Freight Association tariff called for an increase in the rates on lumber and related articles of 95 per cent."

The fact is that our Atlanta tariff bureau issued a new tariff of 995 pages carrying some 400,000 separate rates; in fact, all of the rates on lumber from several thousand origins in 11 Southern states to thousands of destinations in the 14 Eastern and New England states. From a small group of L. & N. stations in Kentucky to Schuylerville, N. Y., one single rate was erroneously printed as 21 cents instead of 41 cents. We corrected this one error when it was discovered, as we had to do or continue to violate Sections 3 and 4 of the Act. There was a technical increase of 95 per cent in this single erroneous rate, and it was held up as a horrible example of what the railroad rate bureaus do.

The foregoing was typical of many other statements in the Thurman Arnold memorandum, and led Mr. Eastman to denounce it as not within measurable distance of the facts.

Charges such as I have mentioned and numerous others illustrate the reasoning back of the Department's general premise that rate associations and bureaus have no value and are contrary to the best public interest, and upon which it is proceeding to pre-try its proposed

cases through inflammatory speeches by its officials touring the country and in the public press. What does the Justice Department offer as a substitute for the orderly and efficient methods of the southern roads?

Dr. I. R. Barnes, formerly on the staff of Yale University in the Economics Department, but at the time a consulting economist in the Anti-trust Division of the Department of Justice and its "expert" on rate procedures, told the Senate Committee, when speaking of what he termed the "heirarchy of committees and associations," that the purpose of the Interstate Commerce Act would be accomplished by requiring nothing more than that each individual road should decide upon and then notify a publishing agent of changes in rates applicable over its line, except that there would be some need for collaboration between several railroads to determine satisfactory joint rates.

Simple, isn't it? Compare this program with the present operations of southern carriers.

How Public Interest Is Protected

The purpose of the Southern Freight Association is to furnish a convenient and workable medium or clearing house for the consideration and adjustment of traffic matters of mutual interest, such as freight rates, rules, and regulations, between the carriers and the shipping public as well as between the carriers and the Interstate Commerce Commission and the various railroad regulatory bodies located in southern territory.

Any railroad or shipper may originate a proposal to change rates. The shipper may make it direct to the carrier or to the Association as he sees fit. Then, in accordance with an agreement of more than 20 years' standing with the National Industrial Traffic League, the ordinary rate proposal is publicized through the Traffic World and through our own weekly docket bulletin. It immediately goes out to our members, also to other rate territories if interterritorial rates are involved.

It is set down for public hearing before our Standing Rate Committee which meets every Monday. All interested shippers are given full opportunity to express views orally or in writing either for or against the proposal. These views are distributed to members.

Any shipper proponent has the right to inquire about the nature of any objections to the proposal. Many individual lines also publicize rate proposals through circular letters to shippers and solicit their views. Any shipper can step in and show how he will be adversely affected, or he may demand a corresponding readjustment which he frequently gets. Competition between shippers and between carriers, also joint routes, are such that today there is hardly any such thing as a local rate, at least not in the sense that a change therein will not affect any other carrier or shipper. If the proposal stands approved by mail—and we promptly so dispose of over 80 per cent of them—this fact is again publicized to shippers. Any shipper of record is also advised by letter.

If the proposal is referred to our General Freight Committee for consideration, any shipper who desires a hearing before that committee gets it. If the proposal is appealed to the Executive Committee, here again the shipper has the privilege of an oral hearing. We do not conduct *ex parte* hearings. If one party requests an oral hearing, it is our aim to invite all other shippers who have shown an interest in the proposal. These conferences are informal. The whole purpose is to bring out all of the facts, upon which the individual committee member can base an intelligent and fair decision.

And yet, the Justice Department's witnesses told the

Senate Committee that shippers have no right of appeal to a higher committee. During the 4 years ended with 1942, our General Freight Committee held 230 public hearings and the Executive Committee held 131 hearings, to say nothing of the numerous special conferences with shippers. All actions of our committees take the form of recommendations to member lines. They do not absolutely bind any member. Any railroad has the full right of independent action, and as I have already shown, frequently exercises it. This procedure insures full publicity, complete consideration of all the facts, and orderly and efficient conduct of traffic affairs between railroads, shippers and regulatory commissions.

While mistakes are made—often later corrected—my view is that on the whole the recommended actions are just and reasonable in the light of the carriers' interests as well as those of the many shippers and receivers who are interested and, in fact, have a large stake in what is done. Actually, they help produce the final product.

Justice Department Favors Secrecy

Contrast this with what the Department advocates.

Under the Justice Department's plan the B. & O. should decide for itself, without conference with anybody other than a particular shipper or receiver, that it will reduce the rate on sugar from Baltimore to Chicago. The New Orleans or Savannah refinery first discovers the rate in the tariff—but too late. The New Orleans or Savannah refinery—either one or both—take up the matter with their lines in order to restore rate parity. These lines could not confer with each other. Each line would have to handle separately with its connections in the many through routes, and each connection could have nothing to do with any other competitor. Receiving points such as St. Louis, Indianapolis, Cincinnati, and Louisville would learn as best they can about what is going on, but probably too late. Experienced shippers can readily visualize the chaos of such a rate procedure.

Bear in mind in connection with this sugar illustration, I have stated the case in its simplest form. Shippers appreciate the ramifications of the 3rd and 4th sections of the Act, the absolute necessity for related adjustments, and know that the rate situation is not nearly as simple as I have stated it.

Can you imagine a carrier and two or three of its connections proceeding to change a rate on paper from Jacksonville, Fla., to Chicago without affecting every other paper-producing point in the South, and a substantial number of other northern consuming points? Every paper producer in the South and every southern carrier has a vital interest in such a rate. In some way, nearly every southern carrier participates in some joint rate and route on paper.

How Justice Department Scheme Would Work

No longer would the southern and eastern carriers be able to sit down with the peach producers of Georgia and the Carolinas—as they have done—and across the table work out a "distress" rate adjustment to the North and East, which incidentally, is lower than the northern level.

The shippers, under the Justice Department's rate-making philosophy, would handle separately with each origin carrier and they in turn with each of their several connections. I am safe in saying that nothing could have been accomplished under such a procedure.

Can you imagine how the carriers could comply with the numerous decisions and orders of the Commission,

such as the Docket 13494 case, and the numerous collateral commodity revisions, without publicity and collaboration between carriers and shippers, and the chaos and confusion if each carrier had to handle for itself?

The Governor of Georgia in a recent magazine article charged that for 80 years the railroads have discriminated against Georgia ports in favor of eastern ports, but most shippers know that the export, import, and intercoastal class and commodity rates between the great competitive Middle West and South Atlantic and Gulf ports are almost without exception actually lower, sometimes much lower, mile-for-mile, than the rates to and from eastern ports, and that mile-for-mile "parity" would be ruinous to southern ports.

Experienced shippers know also of the years of litigation and the struggle we had over these rates, successful only through organized efforts of southern carriers, southern port and steamship interests whose thoughts and interests were much alike and who compromised conflicting views to the end that we were successful. The Justice Department would utterly destroy such cooperative efforts.

Present bureau rate procedure, like the rate structure itself, is not perfect. Both will be changed from time to time to meet ever-changing conditions, but we have not reached the point where we should return to secret rate-making, cut-throat competition, disruption of sensitive rate structures, disregard of the plain requirements of the Interstate Commerce Act, and to utter confusion and disorder in the conduct of traffic affairs between the railroads and their patrons—such as is proposed by the lawyers and economists of the Department of Justice.

Mr. Eastman said before the Senate Committee:

"I am wholly convinced that if the carriers of the country are to respond to the duties and obligations imposed upon them by the Interstate Commerce Act, and if the rate structure is to be reasonable, free from unjust discrimination or undue preference and prejudice, as simple and consistent as may be, reasonably stable, and sufficient for the financial needs of private ownership and operation, the carriers must be in a position to consult, confer, and deal collectively with many phases of the matter, and that while the ultimate right of individual action should be scrupulously preserved, it is desirable that such action should not be taken without prior notice to fellow carriers and shippers and an opportunity for them to express views."

Even the Board of Investigation and Research made an extensive study and review of the operations of the rate bureaus, and stated:

"It seems clear that rate bureaus, conferences and committees serve a purpose that is necessary to the conduct of the business and to the public regulation of carriers."

It recommended their continuation as necessary in the public interest. Read its recent report and you will find the Southern Freight Association was given a clean bill of health, and many of its practices recommended for general application.

Seeking to Destroy R.R. Efficiency

Never was I more proud of the fact that I am a railroad man having a part in performing an essential war task not excelled by any other industry—possible only because of the full cooperation and whole-hearted assistance of our shippers and receivers, and of every government department save the one which has been harassing the railroads all during this war. I am far from alone in my thought that, coming at this time, there could hardly be any greater sabotaging of the war effort than that we now see in progress.

Railroads-in-War News

The Car Supply Gets Tighter and Tighter

Shortage arises because shippers and carriers are denied needed labor

The car situation is tighter than it has been in many years and there are not enough cars to carry all of the commerce of the country but the situation will not continue indefinitely or grow worse, L. M. Betts, manager of the Railroad Relations Section, Car Service Division, Association of American Railroads, declared before the sixty-eighth regular meeting of the Mid-West Shippers Advisory Board at Chicago on October 12. The entire time of the meeting was devoted to discussion of the car shortage with some criticism being made of governmental departments which decline to change shipping orders to permit heavier loading to save cars and to alter unfavorable routings which delay shipments or increase car mileage.

Fewer Box Cars Than Last Year—Mr. Betts said that the problem of handling final quarter traffic this year is aggravated by heavy military demands and bumper crops of wheat, corn, tobacco, soybeans and rice. The shortage of box cars, he stated, is not due to an inequitable distribution of cars throughout the country, but to the demand for the existing box cars which number 10,000 less than a year ago. During the week ending September 30, he continued, carloadings increased to 912,999, but declined in the next week to 877,742, because of the limited supply of box cars. In the first week, 25,000 box cars in excess of normal were loaded to handle a large part of the increase and these could not be unloaded and returned in time to take care of the business in the second week. Consequently loadings dropped because there were insufficient cars in which to load all the available freight. On October 1, he said, box cars were distributed as follows:

District	Per cent on line
Eastern	99.4 (even though trend is east)
Allegheny	105.3
Pocahontas	72
Southern	99
Western	98.2 (total on line is only 5,686 less than ownership)
Northwestern	89
Centralwestern	105
Southwestern	101

The Pacific Coast territory, he stated, has 15,000 more box cars on line than it should have, but there is no accumulation at any of the ports.

Shippers Hold Cars Longer—An increase in the length of time cars are being held by shippers was reported at the meet-

Altoona Man Is Awarded Legion of Merit

Lieut. Commander James E. Van Zandt, former Republican Congressman from Altoona, Pa., who volunteered for Navy duty right after Pearl Harbor, has been awarded the Legion of Merit in the Southwest Pacific for "splendid performance of duty" as commander of assault waves "in sustained operations against the enemy."

Commander Van Zandt is an alumnus of the Pennsylvania Railroad. Born in Altoona in 1898, he entered P. R. R. service at Altoona Shops as a molder's apprentice in 1916 and advanced through various positions in the operating and traffic departments to an assignment as district passenger agent at Washington, D. C., which he was fulfilling in 1938 when his home-town folks picked him as their Congressman.

ing. A. H. Schwieter, chairman of the Vigilance committee and traffic director of the Chicago Association of Commerce, stated that the average detention time in the Board's territory increased from 1.56 days in June to 1.60 in July and 1.57 in August as compared with 1.42, 1.46 and 1.57 for the respective months in 1943, while for the period from June to August the percentage of cars held over 48 hours is greater than for any month in 1943 or 1944 up to and including the month of May.

Mr. Schweitert challenged the effectiveness of Interstate Commerce Commission service order No. 242, contending that if an order is necessary, the penalty charges of the order are too low, since before the \$11-per-day penalty becomes effective the car will have been detained six days, and the record indicates that the average detention time beyond the 48-hour free time period is approximately two days. For these two days the demurrage charges, he said, are not increased but remain at \$2.20 per day. He also contended that the cancellation of the average agreement would cause a decrease in the number of cars unloaded within the first 24 hours and increase switching, since shippers will insist that the cars be switched in the order of their receipt.

Inadequate Labor Supply the Cause—

"Our contact with shippers," he continued, "indicates that the reason for delays in loading and unloading are largely caused by shortage of labor. Some railroads have complained of 'bunching' of cars on the part of shippers; however, the inability to

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N. Y. Port Officer Praises Railroads

[Says it's downright impossible to elicit from them news of military nature]

Railroads are performing their war role, without giving away any military information, states Col. K. W. Thom, port transportation officer, in assaying the work railroads are doing, on the occasion of his own eighth anniversary at the New York Port of Embarkation, October 17. Throughout the war, suggests Colonel Thom, in an interview for the publication "Port News," it has been downright impossible to elicit any information from carriers operating into this port, when such information had to do with anything of a military nature.

To emphasize his point, he recalled the incident concerning the president of a large railroad. This gentleman recently told the colonel he had been unable to learn from which port of embarkation his own son was leaving. The executive said men on his own railroad, who, by the very nature of their work, knew of the destination of the president's son, had refused him this intelligence.

The colonel recalled that at one time fear had been expressed that the New York Port of Embarkation, a bottleneck in the last war, would again be unable to handle the tremendous volume of traffic and material demanded in the present conflict. There have been no such delays, or tie-ups, this time, Colonel Thom reveals, and for the successful movement of freight, he gives credit to the planning of Maj. Gen. Homer M. Groninger, commanding general, and to the Traffic Control Committee, as well.

Colonel Thom explains that this committee coordinates movement of freight into the port, "by basing the volume to be called in on the ability of the shipping agencies to take it out of the port."

He cited an instance of railroad efficiency. With only six hours notice trains were set up for an entire division arriving at this port by ship. Trains left the port on a 35-min. schedule, just 1½ hours after the ship docked and with no loss of time, moved the division to two widely separated points.

Scrap Report Eliminated

B. C. Bertram, chief of the Railroad Unit, Salvage Division, War Production Board, last week advised railroads that, effective October 12, the unit had discontinued Form WPB 919 on which the carriers made voluntary reports on scrap materials on hand, the large roads reporting on materials other

than ferrous metals and small roads, not reporting to the Bureau of Mines, reporting on ferrous scrap as well.

The Car Supply Gets Tighter and Tighter

(Continued from page 627)

obtain labor is the primary cause and no penalty order will cure this condition. Recently our attention was directed to Order No. 505 of the War Manpower Commission which restricts the availability of employees to certain 'must' industries. Many industrial plants, motor carriers, freight forwarders and railroads do not come within this classification and, consequently, they are unable to get necessary help. Some complaints have also been received from shippers indicating their inability to obtain necessary switching service which would assist them in a more rapid release of cars. In specific instances we have called this matter to the attention of the carriers and relief has been granted where this is possible; however, the carriers' labor situation is also critical, but here again a penalty order will not improve the situation."

Following criticism of government agen-

cies for wasting transportation through light loading and circuitous routing, Fred S. Keiser, director of grain and ore movements of the Office of Defense Transportation at Chicago, volunteered to handle any complaints. His office, he said, will act as a clearing house for "breaking bottlenecks" when other governmental agencies refuse to change shipping orders.

To Forestall V-Day Tie-Up—Arrangements to prevent the 100,000 government cars now moving to eastern ports daily from jamming eastern railroads and ports when the shipment of war materials to Europe is stopped on V-day have already been set up and tested by the War Department, Brigadier General W. J. Williamson, chief of the Traffic Control division of the Army Service Forces, disclosed at the meeting. On V-day, he said, most of the shipments of war materials from Eastern ports to Europe will be stopped and to prevent cars en route from accumulating at ports or on eastern railroads, the organization already set up will, within 24 hours, notify railroads to hold shipments at origin or at points en route. At the same time, the railroads will be given new routings, most of which will be to Army depots, since much of the material for the European war theater is not suitable for other combat areas.

Materials and Prices

The following is a digest of orders and notices that have been issued by the War Production Board and the Office of Price Administration since October 6, and which are of interest to railroads:

General Status of Materials—Forty-two materials, the supply of which has increased, have been removed from, and 17 other materials have been added to Group I (supply insufficient to satisfy war and essential industrial demands) in the fourteenth and final Material Substitutions and Supply List. The materials removed include: *Chemicals*—Calcium carbonate. *Lumber and Plywood*—Beech, cottonwood, elm, gum, larch (western), magnolia, poplar (yellow), sycamore, tupelo and willow. *Fuels*—Residual fuel oil. *Miscellaneous*—Tung oil, pine tar, rosin and synthetic rubber (neoprene). The 17 materials placed in Group I include: *Metals*—Steel castings (medium and small), rope wire (high carbon .057 and smaller), wire rope. *Chemicals*—Carbon tetrachloride, chlorates and perchlorates. *Fuels*—Bituminous coal (by-product quality only), coke (coal). *Miscellaneous*—Congo copal resin, paper and products. Among 14 materials that have been placed in Group III because they are in excess of current industrial needs are: *Metals*—Zinc. *Plastics*—Allyl resins. *Lumber*—Elm (soft), hackberry and sycamore. *Fibres*—Horse tail (dressed). *Fuels*—Gas (manufactured). *Miscellaneous*—Concrete products (precast), graphite (Ceylon lump, 90-95 per cent carbon, and Madagascar flake, 92.5 per cent carbon and less), rubber (synthetic, Buna S (GR-S)) and spodumene.

The W. P. B.'s Conservation division said: "The supply of some fabricated and semi-fabricated metal products continues to be tighter than the metals themselves, due to shortages in either manpower or in manufacturing facilities, or both. Among such ferrous items are malleable iron castings; small and medium size steel castings; automotive type gray iron castings; wire rope and rope wire; quality carbon bars and forging billets. For non-ferrous such shortages are in copper and copper base alloy tubing over 4 in.; all insulated copper wire, cable and cords (other than weatherproof wire and cable)."

In explaining its views on the materials outlook after "V-E" Day the division continued: "A German collapse may or may not come quickly.

When it arrives, large cutbacks should change favorably the materials situation as recorded in this issue, (of the Supply List). Since only future military developments can guide the extent and nature of these cutbacks, it is impossible to estimate accurately today the effect of the cutbacks on the supply of any critical materials. Therefore, no such list of future material shortages prepared today can be complete."

A partial list of materials that will remain scarce after "V-E" Day is said to include: tin, sisal, cattle hides, kapok, manila, coal (anthracite), container-board (kraft), corundum, paper and products, pyrethrum, natural rubber and cotton broad woven fabrics.

"It is impossible at this time to anticipate which species of lumber will be short after 'V-E' Day, but it is expected that softwood lumber generally will be short," the division said. Moreover, the division reported that the No. 14 issue of the list would be the final one because of the general easing of many important materials.

Brass and Bronze Castings—After "V-E" Day, foundries will be permitted to fill unrated orders for brass and bronze castings if they do not interfere with military orders. Alloy ingot, scrap and refined copper no longer will be allocated. Most conservation and limitation orders, including M-9 and M-9-c, will be revoked, and virtually all manpower controls will be abolished. Foundries may accept unrated orders now, but they may not schedule or produce them until after "V-E" Day. From an analysis of the copper industry's estimated production after "V-E" Day and estimated cutbacks in war requirements, the W. P. B. has established that 57,000,000 lb. of copper and copper products per quarter will be available for brass and bronze ingot makers for civilian use. Committee members said that the brass and bronze ingot industry has kept pace with foundry requirements in the past and will continue to do so, provided that proper materials are available. Moreover, they asserted, the brass and bronze ingot makers have no physical reconversion problem because the industry uses the same facilities and equipment for both civilian and wartime production. Two factors that may have a bearing on the industry's production after "V-E" Day, however, are O. P. A. policy on pricing at that time and the

manner in which surplus supplies are handled under the Surplus Property Disposal Act.

Fuel Oil—Industrial consumers of fuel oil will be able to apply for additional inventory reserves sufficient to fill their storage tanks, regardless of former limitations on the amount of reserve allowable, the O. P. A. announced October 10, in conjunction with Amendment 28 to Revised Ration Order 11.

This action applies only to consumers who have rations for commercial, industrial, or governmental purposes. Chiefly affected are consumers who use large quantities of oil for industrial rather than for heating purposes. Application for the increased reserves is to be made in writing to the O. P. A. district office serving the consumer's local War Price and Rationing Board. On approval, consumer's unfilled storage tanks can be brought up to capacity. This is reserve inventory, O. P. A. emphasized, and does not mean that the consumer's basic ration will be increased.

Gasoline—The P. A. W. has announced that essential civilian deliveries and refinery production of civilian grade gasoline will soon be in balance. Decreases in farming and other seasonal demands along with the coming of winter will reduce civilian gasoline deliveries to balance with refinery production.

Gages and Precision Tools—Because production of gages and precision measuring hand tools is now considered adequate for all essential demand, suppliers may purchase these items without ratings, and the use of W. P. B. Form 547 (Distributor's Application for Preference Rating) has been discontinued.

Metal Scrap—In view of the adequate supply of metal scrap, Order P-136, assigning preference ratings to processors of metal scrap for maintenance, repair and operating supplies was revoked on October 6. Deliveries already rated under P-136 will be completed, but no additional application of these ratings may be made, W. P. B. explained.

Prices

Building Brick, Hollow and Drain Tiles—An increase of \$1.75 per M in producers' prices for common and face building brick, and 72 cents per eon for structural clay hollow tile and clay drain tile, produced in the states of Texas, Arkansas, Oklahoma, and Louisiana became effective October 11, under Amendment 55 to Order A-1 under MPR 188. Dealers may pass along the increases and the action also revokes price orders previously issued by the regional O. P. A. administrators applicable to these commodities.

Poles and Piling—Correction of several errors contained in two recently issued price regulations covering poles and piling is effected by Amendment 1 to MPR 555, effective October 23, and Amendment 1 to MPR 559, effective September 26. In Maximum Price Regulation No. 555 (Western Poles and Piling), effective September 11, the word "treated" was omitted in the caption of section 14 (b) and in the first sentence of the text. This section deals with a quantity discount applicable to sales of treated poles only. As a result of the error, the provision became applicable to sales of untreated poles as well, and this, O. P. A. said, is not the purpose or intent of the provision. Another correction adds a price table that had been inadvertently omitted. This is Table 4 in Section 14 of the regulation and gives prices of Douglas fir reinforcing studs, anchor logs and short round material.

In MPR 559 (Eastern Poles and Piling) the wrong price table was given for yellow pine reinforcing studs and anchor logs shorter than 15 ft. The new action amends this regulation by substituting the correct table. MPR 559 provides prices originally established in Second RMPR 216. The original price table had been amended, and through an oversight in transferring the price tables from Second RMPR 216 to MPR 559, the original table was incorporated in the latter regulation instead of the amended one.

Southern Pine—Restoration of an allowance of 10 cents per mile per M. b. m. as the permissible addition for transportation of log-run Southern pine lumber beyond the 30-mile "free delivery" zone, is provided by Amendment 4 to MPR 19-A, effective October 21.

GENERAL NEWS

Costs Pension Board 39c to Disburse \$1

Deasy questions economy of set-up, is fearful for pension solvency

The Railroad Retirement Board has cost railroad employees and railroad companies \$17,000,000 in disbursing \$44,000,000 for unemployment insurance benefits, according to J. F. Deasy, vice-president in charge of operation of the Pennsylvania, in an address at a meeting of railroad shop craft employees at Chicago on October 17.

"No one will dispute the proposition that labor and management would be performing a good service if they were jointly contributing to sound retirement and unemployment insurance plans, and if the contributions were used only to administer those plans efficiently," Mr. Deasy said.

Duplicated Employment Service—"However, when those who administer such plans eat heavily into the earnings of the employees to expand their own administrative payrolls it is time to call a halt. If you will look into the expenses of the Railroad Retirement Board for the fiscal year ending June 3, 1944, you will find that out of the monies contributed by employees out of their pay, and out of the taxes the companies paid on employees' payrolls, \$5,500,000 were taken to operate the Retirement Board. A total of \$2,500,000 was taken out of your pension fund and \$3,000,000 out of the unemployment insurance account. Out of the unemployment insurance fund more than \$2,500,000 were spent in establishing and maintaining employment bureaus around the country in addition to those of other branches of the federal and state governments doing much the same work.

"Since 1938, the year the Unemployment Insurance Act was passed, the Railroad Retirement Board has spent 39 cents for administrative expenses for every dollar disbursed for unemployment benefits. In other words, the Railroad Retirement Board spent \$17,000,000 for administrative expenses in disbursing \$44,000,000 for unemployment insurance benefits.

"For the mutual good of labor and management, I believe that all legislation affecting their mutual relations should be mutually agreed upon, and should not be pressed upon the Congress as the demands of only one side.

"There are other fields of legislation in which labor could interest itself with direct benefit to the strength and soundness of the railroad industry and the welfare of its employees.

Pension Fund Insolvent—"An example of the efforts of some leaders of organized railroad labor to seek legislative action separately, rather than by mutual discussions between labor and management, is found in the recently introduced Railroad Social Insurance Bill, which applies only to the railroad industry.

"This bill proposes, through amendments and changes in the present Railroad Retirement Act, to set up extensive provisions for sick, unemployment and other forms of insurance. It would place on the railroad industry an obligation to provide social insurance of a character which is in no way a normal or sound obligation of the industry to provide.

"A man or woman with a job has security. A man or woman with a job that carries with it provision for income after retirement is likewise secure, provided the form of retirement income is sound. The Railroad Retirement Board, in an actuarial study recently made public, has found that the existing Retirement Act is insolvent, and that the taxes which employees and employers are now paying will have to be increased more than 50 per cent on the basis of the present payrolls, in order to place the benefits provided in the present Act on a sound and secure basis. In the pending bill the rate of taxes on both employees and employers will be considerably increased, but the proposed benefits are so greatly enlarged and extended that the taxes recommended will not be sufficient to support the proposed benefits."

Turner Succeeds Holzborn as O. D. T. Waterways Head

Lawrence C. Turner has been appointed assistant director of the Office of Defense Transportation, in charge of the Waterways Transport Department, succeeding Ernst R. Holzborn, who died on October 11 in Washington, D. C., at the age of 49.

Mr. Holzborn had spent more than 30 years in water shipping activities, having held various posts in that industry before his appointment, in January, 1941, as assistant director of the Bureau of Water Carriers of the Interstate Commerce Commission. He resigned in December of the same year to become executive vice-president of the Atlantic Coastwise and Inland Water Carriers Association, but was appointed to the O. D. T. staff a few weeks later.

Mr. Turner joined the O. D. T. in 1942 after more than 12 years' water transportation experience, most of which was with Swayne & Hoyt, Ltd., New Orleans steamship operators.

He was in charge of O. D. T.'s Research and Permit Section until he was appointed, some months ago, director of the Inland Waterways Division.

I. C. C. Bureaus Show Consolidated Figures

Issue compilation of data from returns of large roads for 1942

The Interstate Commerce Commission has made public a compilation prepared by its Bureau of Transport Economics and Statistics and Bureau of Accounts from the "consolidated statistical statements" filed for the year ended December 31, 1942, by Class I roads having annual railway operating revenues of \$10,000,000 or more. The compilation is Statement No. 4411.

The filings, some made under protest, were in response to the commission's order of December 18, 1941, as amended August 31, 1942, which was opposed by the railroads. The order was a follow-through from the 1935 letter to chief accounting officers, calling attention to the fact that the commission (Division 4) had adopted a policy of consolidated reports.

34 System Reports—The statement's tables present condensed summaries of the balance sheet, income, and profit and loss returns of 34 roads. Of the 68 carriers subject to the order, 12 were subsidiaries of the 34 reporting companies; 18 companies were excused from compliance because they were undergoing reorganization; and four had no subsidiary companies as defined by the commission. As of December 31, 1942, the 34 reporting roads had a total of 737 carrier and noncarrier subsidiary companies, including noncontrolled lessor companies.

Thus a total of 771 companies were involved. The statement explained that the noncontrolled lessor companies were included "in order to obtain a picture of the road and equipment assets producing the revenues." It was conceded, however, that another result was to include in the group totals "assets and liabilities, such as cash, security investments, etc., which are not subject to the direct control of or used by the respondent."

The tables are set up by individual respondents with no summary table covering all returns. The three columns show in turn the figures on the books of the reporting road, the group totals shown on the books of the reporting road and its subsidiaries, and the "net of the group totals after eliminations." The "group totals" of the total assets shown for 10 of the 34 roads exceeded a billion dollars, the Pennsylvania group total being the largest.

P.R.R. the Largest—The Pennsylvania group included 101 companies, the respondent Pennsylvania Railroad Company reporting for itself total assets of \$2,653,-

776,725. The total of assets shown on the books of the group was \$4,661,848,288, while the net after eliminations was \$3,814,030,117. The equity of the respondent's stockholders in the group's appropriated and profit and loss surplus was \$755,776,986, while that of stockholders of subsidiaries other than respondent was \$15,480,486. In the net-after-eliminations column the former figure went down to \$642,589,597, while the latter went up to \$15,845,889. The 1942 net income after eliminations was \$114,268,162, compared with \$147,754,452 shown on the books of the group and \$101,468,793 for the P. R. R. alone.

The New York Central report included 65 companies, showing for N. Y. C. total assets of \$1,960,009,135, the group aggregate at \$3,258,590,252, and the net after eliminations at \$2,764,786,714. The equity of N. Y. C. stockholders in the group's appropriated and profit and loss surplus was \$438,589,863, a figure which came down to \$382,537,784 in the net-after-eliminations column, the equity of stockholders of subsidiaries other than respondent meanwhile remaining \$35,286,619 in both columns. N. Y. C.'s 1942 net income was shown at \$49,082,182, the group total at \$63,968,765, and the net after eliminations at \$59,337,094.

Other Large Systems.—Thirty-six companies were included in the Southern Pacific group, the respondent reporting total assets of \$1,242,645,221 for itself, \$2,673,563,143 for the group, and a net after eliminations of \$2,021,969,891. The equity of the respondent's stockholders in the group's appropriated and profit and loss surplus was \$326,804,756, and it increased to \$355,268,566 in the net-after-eliminations column. No equity is here shown for stockholders of subsidiaries other than respondent.

The \$84,962,077 shown for 1942 net income after eliminations compares with a group total of \$85,896,015, and \$18,224,513 for the respondent alone.

The Atchison, Topeka & Santa Fe group of 62 companies had total assets of \$1,829,800,719, compared with \$1,432,235,852 for the Santa Fe alone and a net after eliminations of \$1,565,485,956. The equity of respondent's stockholders in the appropriated and profit and loss surplus rose from a group-total of \$435,663,364 to a figure of \$449,004,553 in the net-after-eliminations column. The equity of stockholders of subsidiaries other than respondent remained the same (\$753,387) in both columns. The Santa Fe's 1942 net income is shown at \$72,977,761, the group total at \$82,911,398, and the net after eliminations at \$77,249,749.

The Baltimore & Ohio group included 88 companies with a group total of assets at \$1,818,782,641, compared with \$1,278,094,566 for the B. & O., and a net-after-eliminations figure of \$1,373,741,183. The equity of the respondent's stockholders in the group's appropriated and profit and loss surplus was shown at \$96,996,240 in the group-total column and at \$88,520,615 in the net-after-eliminations column. The same in both columns was the \$3,126,497 figure for equity of stockholders of subsidiaries other than respondent. The 1942 net income after eliminations is shown as \$17,458,514, compared with the lower figure of \$17,315,041 in the group-total column and \$16,997,764 for the B. & O. alone.

U. P. Includes 24 Companies.—Twenty-four companies, with total assets of \$1,744,726,212, were included in the Union Pacific group. The U. P. alone reported total assets of \$1,145,388,426, while the group's net after eliminations was \$1,369,641,041. The equity of U. P. stockholders in the group's appropriated and profit and loss surplus was \$311,852,040, a figure which increased to \$314,708,685 in the net-after-eliminations column. The equity of the stockholders of subsidiaries other than respondent was the same (\$128,784) in both columns. The U. P.'s 1942 net income was \$61,702,648, compared with a figure of \$63,696,621 in the group-total column and a net after eliminations of \$62,697,438.

The Atlantic Coast Line reported, for its group of 46 companies, total assets of \$1,284,308,627, compared with \$427,988,735 for the A. C. L. alone, and a net after eliminations of \$1,171,103,495. The equity of A. C. L. stockholders in the appropriated and profits and loss surplus of the group was \$170,523,860, a figure which dropped to \$164,626,191 in the net-after-eliminations column. Meanwhile, the equity of stockholders of subsidiaries other than respondents remained at \$71,726,247 in both columns. The group's 1942 net income after eliminations was \$44,284,280, compared with a group-total of \$48,980,445 and a figure of \$22,619,355 for the A. C. L. alone.

The Chesapeake & Ohio group included 12 companies with total assets of \$1,107,611,215, compared with a net after eliminations of \$1,082,584,248, and \$780,405,195 for the C. & O. alone. Totals on books of the group showed that C. & O. stockholders had an equity in the group's appropriated and profit and loss surplus of \$182,989,110, compared with a net-after-eliminations figure of \$173,193,456. Both columns showed an equity of \$35,108,196 for stockholders of subsidiaries other than respondent. The C. & O.'s 1942 net income was \$33,153,437; the group total, \$42,031,091; and the net after eliminations, \$42,026,091.

Some File Under Protest.—Books of the Illinois Central's group of 27 companies showed total assets of \$1,098,143,348, compared with a net after eliminations of \$790,259,323, and \$714,356,739 for the I. C. alone. The equity of I. C. stockholders in the group's appropriated and profit and loss surplus was shown at \$66,939,315 in the group-total column, and \$62,604,170 in the net-after-eliminations column. The figure of \$4,150,199 for the equity of stockholders of subsidiaries other than the respondent remained the same in both columns. The 1942 net income after eliminations was \$25,409,856, compared with a group total of \$25,459,563, and \$17,226,679 for the I. C. alone.

The Southern reported for its group of 43 companies total assets of \$1,024,899,413, compared with a net after eliminations of \$962,159,622, and \$696,313,797 for the respondent alone. Books of the group showed that the respondent's stockholders had an equity in the group's appropriated and profit and loss surplus of \$132,742,009, compared with a net after eliminations of \$126,203,073. Both columns showed the same equity for stockholders of subsidiaries other than respondent, the figure being \$37,899,565. The Southern's 1942 net income was \$33,388,868;

the group total, \$44,658,011; and the net after eliminations, \$40,415,524.

Of the foregoing, the P. R. R., N. Y. C., A. C. L., and Southern were among the roads which filed their reports under protest. Other protestants were the Boston & Maine, Chicago, Burlington & Quincy, and Delaware & Hudson. Railroad objections, as listed by the I. C. C. bureaus, were that the filing of the statements would serve no useful purpose; that they would be misleading; and that they would cause additional expense to the roads involved. Also, the carriers contended that the report form should have excluded figures on noncontrolled lessor companies and on noncarrier companies, even though the latter were controlled by the ownership of more than 50 per cent of the capital stock.

I. C. C. Reopens Car Spotting Charge Case

The Interstate Commerce Commission has ordered its I. & S. No. 4736 and related proceedings reopened for further hearing, at a time and place to be designated later, for the purpose of receiving evidence as to changes in conditions affecting switching and spotting operations at the plant of the A. E. Staley Manufacturing Co., at Decatur, Ill., since the commission's previous action in this case. Meanwhile the collection of a spotting charge of \$2.50 per car will be continued, the industry's petition for withdrawal of that requirement, pending further proceedings, having been denied. As noted in *Railway Age* of September 23 and September 30, pages 489 and 528, respectively, both the railroads concerned and the industry have requested the commission to reopen the case, on the ground that the conditions upon which it had based its original finding requiring the collection of a spotting charge had since been changed. The Supreme Court in March held that relief from the commission's order lay with the commission and not with the courts.

O. P. A. Wants Passenger Fare Increase Revoked Too

Following upon its announcement that it will actively oppose restoration of the Ex Parte 148 freight rate increases which have been under suspension since May 15, 1943, when the commission reopened the proceeding October 23, and that Max Swiren, Chicago lawyer who was its special counsel last year when the case was before the commission, would again represent it, the Office of Price Administration, on its own behalf and for the Director of Economic Stabilization, this week filed a brief with the commission in which it not only opposed the railroads' "motion for leave to reinstate the emergency freight rate increases now under suspension," but also asked that "all railway rate and fare increases allowed in the proceeding" be revoked.

The effect of this petition is to put the federal price control agency in the position of urging a permanent cancellation of the freight rate increases now under suspension, and also of the passenger fare increase, which has remained in effect since it was ordered by the commission early in 1942.

The O. P. A. contended that the increases are "wholly unnecessary for the purpose for which they were allowed," and in addi-

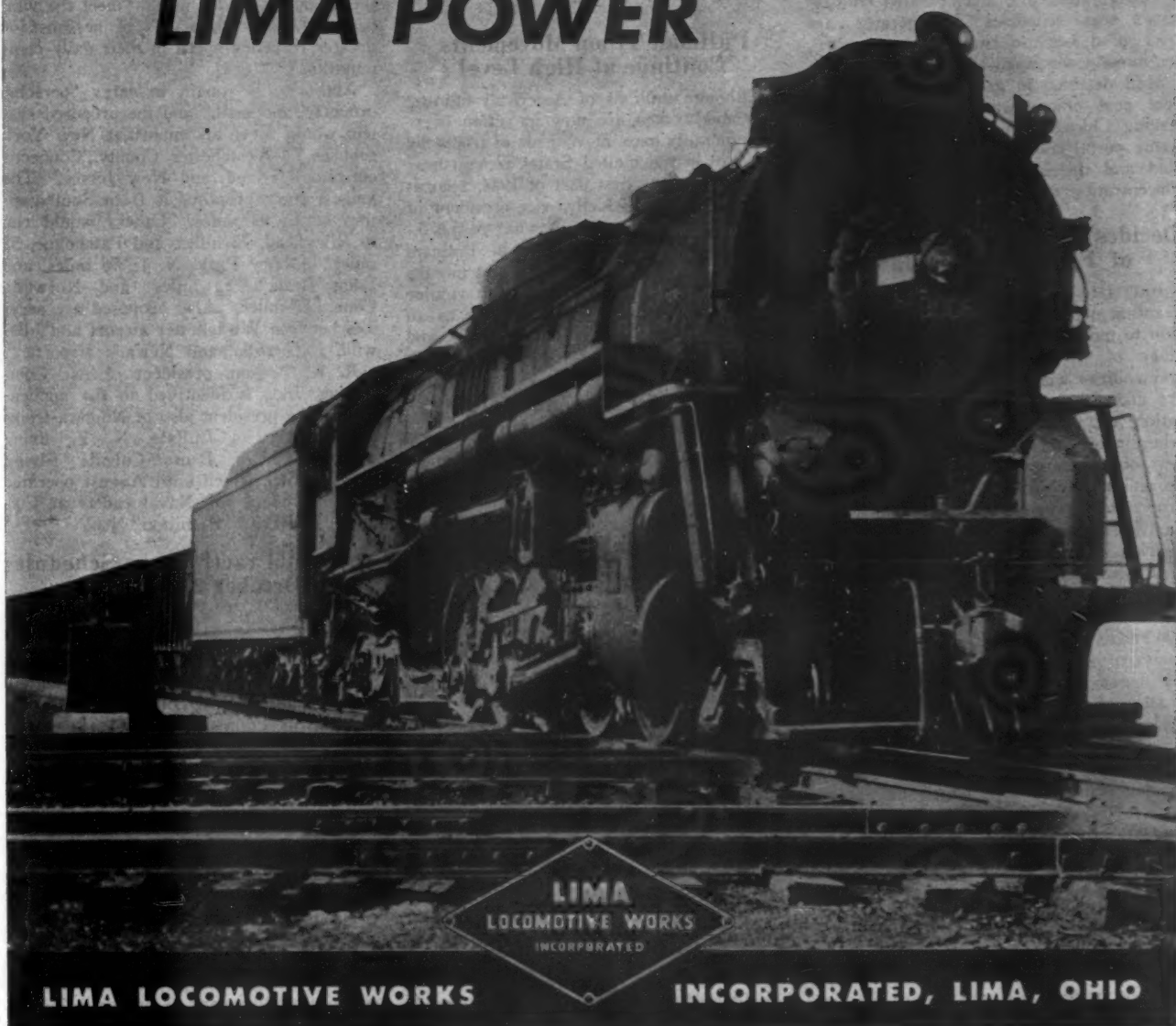
THE FREIGHT GOES THROUGH

AT PASSENGER SPEEDS...

24 HOURS A DAY...

WITH MODERN, HIGH-SPEED

LIMA POWER



LIMA
LOCOMOTIVE WORKS
INCORPORATED

LIMA LOCOMOTIVE WORKS

INCORPORATED, LIMA, OHIO

tion that they "are highly inflationary and contravene the national stabilization policy." Calling the railroads' motion "a shortsighted attempt to obtain still further insurance against possible post-war adversity," the O. P. A. went on to assert that the railroads have enjoyed a "staggering increase" in profits (that is, "profits before federal income taxes") during the war, and that they are attempting to pass on to consumers, through rate and fare increases, "the burdens of wartime taxation" imposed on them by Congress.

Burlington Sets Record in Mail Handling

All records in the 60 years that the Chicago, Burlington & Quincy has carried the transcontinental mail between Chicago and Council Bluffs Transfer were shattered on October 15 when 103 cars of Christmas packages destined to service men in the Pacific were handled out of Chicago. During the period from September 21 to October 16, inclusive, the Burlington handled a total of 1,000 carloads of overseas mail.

The record individual mail train, which may have been the longest mail train in history, was 70 cars on Friday, October 13. It consisted partly of mail cars and partly of refrigerator cars, and operated on passenger train schedules. Refrigerator cars were used because considerable numbers are moving westward at this season.

Mail destined to army post offices and fleet post offices was segregated before leaving Chicago, the former going to the Army postal concentration center at Oakland and the latter to the Navy postal concentration center in San Francisco.

Decides When Motor Transport of Fish Gets Regulated

Interstate Commerce Act provisions granting partial exemption from regulation to motor vehicles engaged in the carriage of livestock, fish, or agricultural commodities were intended to afford farmers and fishermen relief in the transportation of their products "to the point where they first enter the ordinary channels of commerce," but subsequent transportation is subject to full regulation. The Interstate Commerce Commission, Division 5, has so ruled in a report on further hearing in the No. MC-89207 proceeding.

It was further interpreting section 203 (b) (6), which provides that nothing in the act, except the provisions of section 204 relative to qualifications and maximum hours of service of employees and safety of operations or standards of equipment, shall be construed to include: "motor vehicles used in carrying property consisting of ordinary livestock, fish (including shell fish), or agricultural commodities (not including manufactured products thereof), if such motor vehicles are not used in carrying any other property, or passengers, for compensation."

Regulated, if Lading Is Processed—

Directly involved were certain operations of the Monark Egg Corporation, in which connection the prior report had found that the exemption provisions did not cover shucked oysters, fish which have been beheaded and gutted or filleted, shelled pecans,

shelled walnuts, and dressed poultry. The rehearing was ordered after petitions in that connection had been received from "numerous carriers" engaged in transporting the above or like commodities, various interested shippers, and the Secretary of Agriculture. Rail carriers in Official and Western territories and the Railway Express Agency, Inc., were among those urging that the commission adhere to its previous findings, as it did.

Also, it made like findings with respect to other commodities, such as shelled peanuts, on evidence presented at the further hearing. With respect to fish, the commission concluded that "only fish and shell fish dead or alive, as taken from the water, are within the purview of the exemption." To go beyond that would involve "distinction so subtle as to be wholly impractical as a basis for concluding that a given commodity is within or without the description used in the act."

The majority report represents the view of Chairman Patterson and Commissioner Rogers. Commissioner Lee, dissenting in part, would have exempted the transportation of fish "in the various forms in which it is customarily shipped," and of killed, picked, and drawn poultry, and shelled nuts.

Pullman Troop Movements Continue at High Level

Although millions of America's fighting men and women are now in action overseas, monthly mass movements of troops by Pullman in the United States remain near the levels of the first part of 1944, according to George A. Kelly, vice-president of the Pullman Company. A total of 5,673,075 troops were transported in Pullman sleeping cars during the first eight months of the year. The month-by-month volume is remaining steady, he said, citing as an example the totals of January, 697,788, and August, 695,876.

Railway Session at Welding Society Convention

The opening day's session of the annual meeting of the American Welding Society in Cleveland, Ohio, on October 16, was featured by a technical meeting devoted to the use of welding on railway equipment. A. H. Woollen of the railroad sales department of the Aluminum Company of America presented a paper on the welding of aluminum tank cars in which he described the various operating procedures used and the structural benefits obtained, with lighter weight in these cars.

The welding of locomotives for main-line operation was covered by O. K. Kjolseth of the locomotive engineering division of the General Electric Company. The paper was confined largely to experiences in the welding of locomotive frames for all-electric equipment. Mr. Kjolseth also described the procedures followed in the welding of locomotive trucks substituted under a number of the Mexican Railways' electric locomotives in place of the formerly used cast-steel type trucks.

The final paper of the session was read by John McMullen, consulting engineer of the Erie and a member of the A. A. R.,

Mechanical Division, sub-committee which is responsible for wartime extension in the use of welding on car parts, particularly couplers and side frames. The paper was devoted largely to a discussion of the recommended procedures to be followed in the welding of freight-car couplers. Mr. McMullen stressed the fact that welding alone was not responsible for quality work in this field of reclamation. The post heat treatment after welding in a furnace having efficient heat control and satisfactory recording devices was, he said, as important to successful coupler and side-frame reclamation as the use of the welding procedures themselves.

The meeting was conducted by J. W. Sheffer of the American Car and Foundry Company and A. G. Oehler, electrical editor, *Railway Age*, as chairman and vice-chairman, respectively.

Would Establish Air Service for New York Commuters

Air Commuting, Inc., 25 Broadway, New York, has applied to the Civil Aeronautics Board for certificates authorizing the operation of aircraft service for commuters between New York and 31 surrounding communities. The application states that the proposed service would "meet the vital needs of many thousands of persons for greater traveling speed in their daily commutation."

Authority is sought to carry "persons, property, and mail," and the proposed system would serve all important New York suburbs in Westchester County, Connecticut, Long Island, and New Jersey. The longest route proposed is from Southampton, L. I., 92 miles. Others would run to Riverhead, 76 miles, and Patchogue, 55 miles; Asbury Park, N. J., 56 miles, and Long Branch, 52 miles; and Norwalk, Conn., 47 miles. Also proposed are services between Westchester airport and Idlewild, LaGuardia, and Newark airports.

R. K. Benson, president of Air Commuting, Inc., is identified in the application as the president also of Niagara-from-the-Air, Inc., a Buffalo, N. Y., flying school, and of Benson-Colgate Flying Service, Inc., which until August operated a flight school for Naval cadets at Colgate University, Hamilton, N. Y.

I. C. C. Practitioners Schedule October 27 Meeting

Members of the Association of Interstate Commerce Commission Practitioners have been notified that a special meeting of that organization will be held in Washington, D. C., October 27 to consider certain bills pending in Congress having to do with government administrative procedure. The date has been selected because many members will be in Washington at that time in connection with the I. C. C. hearings in Ex Parte 148.

The association is concerned particularly with certain provisions of three bills—H. R. 5081, H. R. 5237, and S. 2030—and the extent to which they will affect, if passed, the power of the commission to determine the qualifications of lawyers and non-lawyers practicing before it and the right of non-lawyers to appear before it. Other provisions dealing with the appoint-

A Statement on **THE FRANKLIN SYSTEM OF STEAM DISTRIBUTION**

*In a review of the recently published
Second Edition of Ralph P. Johnson's
book, THE STEAM LOCOMOTIVE, the Rail-
way Gazette of London, comments:*

THE most significant portent
which has appeared on the
American locomotive scene in
recent years has been the per-
formance on test of the Penn-
sylvania 4-6-2 locomotive as
modified with poppet valves,
separate inlet and exhaust
events, improved ports and
passages, and high superheat.



FRANKLIN RAILWAY SUPPLY COMPANY, INC.

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October 21, 1944

ment of hearing commissioners or examiners, rules of evidence, findings and orders to be made by examiners, appeals therefrom, and judicial review, are among other questions upon which the association may elect to express itself.

Another matter to be brought before the special meeting is the question of formally adopting an addition to the association's code of ethics prohibiting persons not members of the bar from using such titles as "counsel" or "attorney," and specifying appropriate designations, such as "registered practitioner." Association business matters will come up for consideration at a 10 a. m. session, according to the notice, while legislative questions will be discussed at a 2 p. m. meeting. Though not mentioned in the announcement, it is understood that possible legislative action to provide for a right of appeal from commission orders broad enough to require the Supreme Court to pass on the merits of the issue as well as the legality of the commission's findings also may be discussed.

At a dinner session at 7:30 p. m. Elmer A. Smith, senior general attorney of the Illinois Central, will speak on the subject: "The Interstate Commerce Commission: An Independent Tribunal or a Puppet of the Department of Justice?" Like the daytime meetings, it will be held at the Hotel Statler.

Railroad Man Is Elected Vice-President of Welding Society

At the annual election of officers of the American Welding Society at Cleveland, Ohio, on October 19, Frank A. Longo, general boiler inspector, Southern Pacific, was elected vice-president of the Western District of the society which includes sections in the Pacific coast and mountain states area. Mr. Longo has been chairman both of the Los Angeles and San Francisco Sections of the society and at the present time is also vice-president of the Master Boiler Makers' Association and chairman of its Executive Board.

Equipment on Order

Class I railroads on October 1 had 32,224 new freight cars on order, according to the Association of American Railroads. On the same date last year they had 28,896 on order.

This year's October 1 total included 11,017 hopper, 2,849 gondolas, 364 flat, 13,808 plain box cars, 1,671 automobile box cars, 2,071 refrigerator, and 444 stock freight cars.

The Class I roads also had 499 new locomotives on order on October 1, compared with 1,067 on the same day in 1943. The former figure included 124 steam, two electric and 373 Diesel-electric locomotives, compared with 468 steam, three electric and 596 Diesel-electric locomotives one year ago.

Class I roads put 26,156 new freight cars in service in the first nine months this year compared with 20,432 in the same period last year. Of the total 3,844 were installed in August. Those installed in the first nine months included 12,154 hopper, 2,690 gondola, 1,151 flat, 2,037 automobile box, 7,775 plain box, 56 stock, 292 refrigerator freight cars and one other car.

They also put 721 new locomotives in service in the first nine months of 1944, of which 267 were steam, one electric and 453 Diesel-electric. New locomotives installed in the first nine months of 1943 totaled 483, of which 298 were steam, 15 electric and 170 Diesel-electric. New locomotives installed in August this year totaled 64, of which 26 were steam and 38 were Diesel-electric.

Freight Car Loading

Loadings of revenue freight for the week ended October 14 totaled 898,650 cars, the Association of American Railroads announced on October 19. This was an increase of 20,708 cars, or 2.4 per cent, above the previous week, a decrease of 13,698 cars, or 1.5 per cent below the corresponding week last year, and a decrease of 2,601 cars, or 0.3 per cent below the comparable 1942 week.

Loading of revenue freight for the week ended October 7 totaled 877,942 cars, and the summary for that week, as compiled by the Car Service Division, A. A. R., follows:

Revenue Freight Car Loading			
For the Week Ended Saturday, October 7			
District	1944	1943	1942
Eastern	161,846	170,134	162,649
Allegheny	190,723	192,270	187,320
Pocahontas	55,198	55,550	55,016
Southern	120,919	122,622	126,761
Northwestern	137,414	152,193	153,477
Central Western	139,794	138,570	145,198
Southwestern	72,048	75,018	78,829
Total Western Districts	349,256	365,781	377,504
Total All Roads	877,942	906,357	909,250
Commodities			
Grain and grain products	45,550	59,523	51,073
Live stock	23,645	22,069	22,508
Coal	171,814	179,294	167,158
Coke	13,813	14,712	14,456
Forest products	42,529	45,453	49,474
Ore	71,100	81,099	78,856
Merchandise I. C. L.	108,311	102,860	92,776
Miscellaneous	401,180	401,347	432,949
October 7	877,942	906,347	909,250
September 30	912,299	910,644	907,286
September 23	898,667	907,311	897,427
September 16	892,358	902,766	903,099
September 9	825,953	834,670	814,897
Cumulative Total,			
41 Weeks ..	34,298,875	33,325,395	34,056,360

In Canada—Carloadings for the week ended October 7 totaled 78,288, as compared with 77,184 for the previous week, and 74,289 for the corresponding period last year, according to the compilation of the Dominion Bureau of Statistics.

	Total Cars Loaded	Total Cars Rec'd from Connections
Total for Canada		
Oct. 7, 1944	78,288	37,808
Sept. 30, 1944	77,184	38,909
Sept. 23, 1944	74,397	37,919
Oct. 9, 1943	74,289	40,626

Cumulative Totals for Canada		
Oct. 7, 1944	2,800,381	1,535,729
Oct. 9, 1943	2,628,632	1,600,876
Oct. 10, 1942	2,584,889	1,358,335

Bringing Rates into Line with Lower Estimated Weights

Southwestern and southern railroads have been authorized by the Interstate Commerce Commission, Division 2, to increase their rates on liquefied petroleum gas, from producing points in the Southwest to destinations in the South, to compensate for the reduction in the estimated weight from 6.6

to 4.7 pounds per gallon. The reduced estimated weight was established November 30, 1943, as required by the commission in *Green's Fuel, Inc. v. Atlanta & St. A. B. Ry. Co.*, 255 I. C. C. 561.

The present report is in I. & S. No. 5271. While the order requires cancellation of the tariffs proposed by the railroads, it is without prejudice to the filing of new ones on a basis indicated in the report. That basis, as the report puts it, will in no instance result in increases above the per-car charges in effect prior to the reduction in the estimated weight; but "it will result in reductions therein to which the industry is clearly entitled, where the present rates are on a relatively high level, and will approximately preserve the prior charges, where the present rates are on a relatively low level, thereby avoiding unjustifiable depletion of the carriers' revenues."

Lake Shipments Ahead of 1943

Movements of iron ore, bituminous coal and grain on the Great Lakes, up to October 1 this year, showed a substantial increase over the same period of 1943, according to figures recently made public by the Office of Defense Transportation. Total shipments of iron ore were 65,903,184 gross tons, an increase of 800,889 tons; of coal, 41,183,394 net tons, an increase of 8,175,190 tons; and of grain, 188,601,173 bushels, an increase of 100,852,921 bushels.

Named Division Director in O. D. T. Highway Section

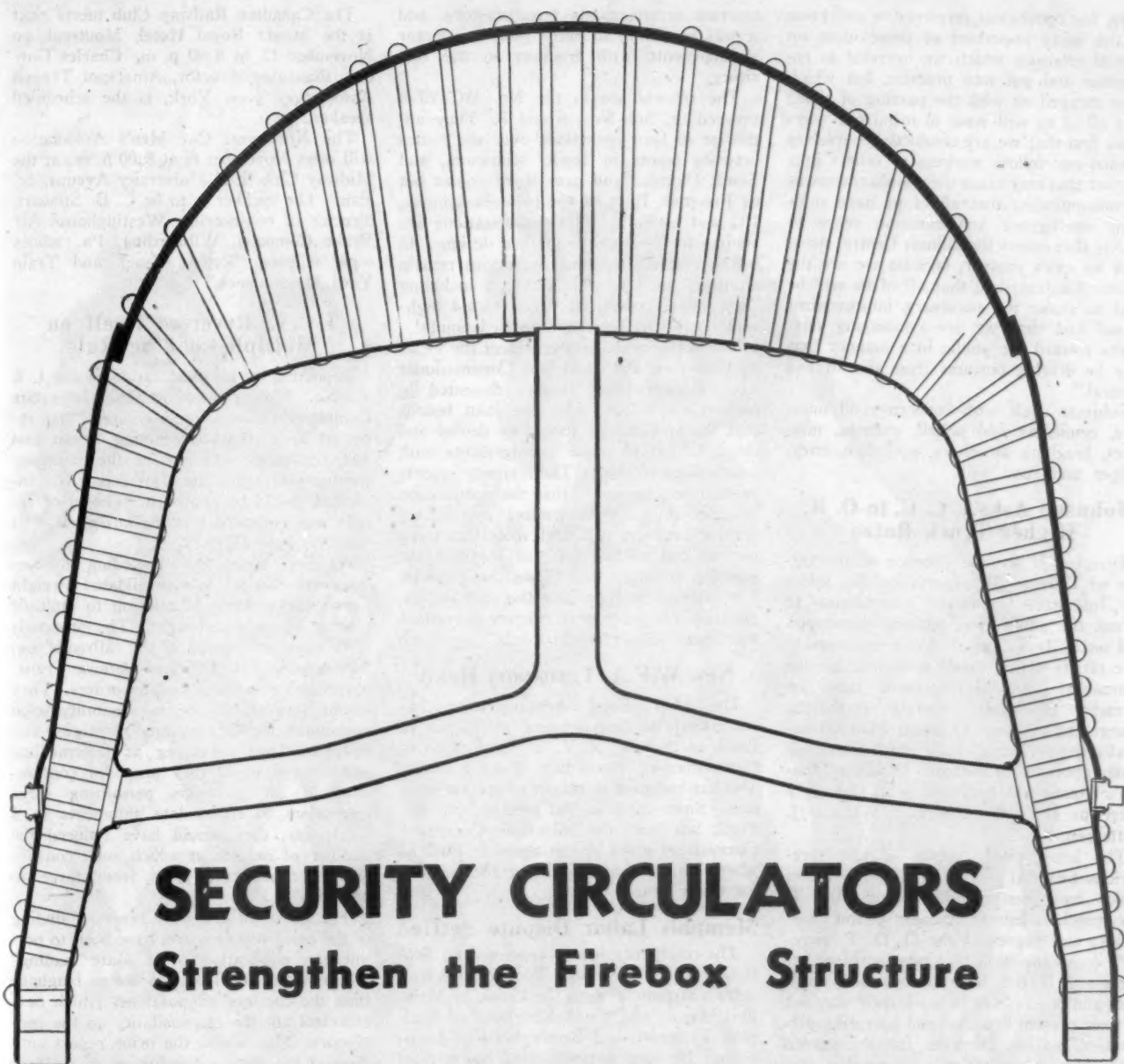
H. Richard Stickel has been appointed division director of property operations in the Department of Highway Transport of the Office of Defense Transportation. He will fill the Washington position formerly held by Ellis T. Longenecker, who now has headquarters at Minneapolis, Minn., where he is serving as federal manager of the midwest truck lines taken over by O. D. T. last month.

O. P. A. Transportation Chief Takes Aviation Post

The resignation, effective November 15, of Dewey C. Wayne as chief of the transportation branch of the Transportation and Public Utilities Division of the Office of Price Administration has been announced. He had held that post since April, 1943, having held executive positions in the trucking industry previously. At one time he was receiver of the Louisiana Southern Railway and on the traffic department staff of the Baltimore & Ohio. He will become general manager of Aero-Transporters, Inc., of Monterey, Mexico.

How Railroad Employees Can Make Friends

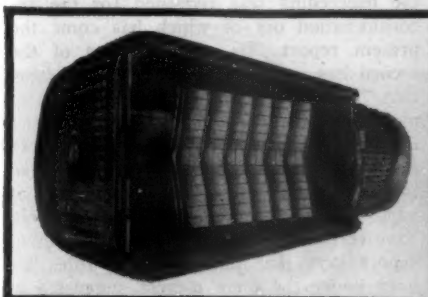
"Making and Holding Friends Through Courtesy" is the title of a pocket size booklet prepared under the direction of C. R. Young, manager of personnel of the Illinois Central, as an aid to self-improvement of employees. As pointed out in the introduction, "the booklet was prepared for every member of the Illinois Central Family, not as a sermon, but because it is believed that every normal individual is interested in self-improvement in a practical, common sense way: that all of us would like to



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have, for convenient reference, a collection of the more important of those ideas on human relations which we intended to remember and put into practice, but which have escaped us with the passing of time; that all of us will want to mend our ways if we find that we are conducting ourselves toward our fellow workers or others in a manner that may cause them embarrassment or unhappiness; that all of us have sufficient intelligence and common sense to realize that unless the Illinois Central prospers we can't prosper, because we are the Illinois Central; and that all of us will be glad to make the necessary improvement if we find that we are conducting ourselves toward the public in a manner that may be driving business from the Illinois Central."

Subjects dealt with concern good manners, crudeness and polish, excuses, mistakes, laughing at others, prejudice, envy, temper and good will.

Johnson Asks I. C. C. to O. K. Higher Truck Rates

Director J. Monroe Johnson of the Office of Defense Transportation has asked the Interstate Commerce Commission to permit the publication, without suspension and on 15 days' notice, of mid-west motor-rate tariffs which would substitute specific commodity rates for present rates on "freight, all kinds," thereby increasing charges to augment by about \$100,000 annually the revenues of the truck lines now under government control. Director Johnson's request was embodied in an October 7 letter to I. C. C. Chairman William J. Patterson.

The letter cited reports of the "precarious financial condition" of the truckers which had been received from Ellis T. Longenecker, federal manager of the properties; and expressed the O. D. T. director's own conviction that rate increases are necessary if the federally-operated truck lines and others "are to work their way out of their present financial and operating difficulties." Also, Director Johnson agreed with Mr. Longenecker's view that the placing of individual "noncompensatory" rates on a compensatory level was preferable to a horizontal increase as a first step.

The Office of Price Administration, which is opposing the railroads' effort to restore their Ex Parte 148 increases, and the War Department have indicated to Colonel Johnson "that they will not request the suspension of the proposed rate changes." The actual tariffs are being filed by the Central States Motor Freight Bureau and the Midwest Motor Freight Bureau, and the proposed adjustment would be established for a period of one year.

I. C. Permitted to Take Over Coordinated Truck Service

Rejecting recommendations of the joint boards involved, the Interstate Commerce Commission, Division 5, has issued two reports authorizing the Illinois Central to substitute its own operations with leased trucks for certain coordinated services which it has been providing under contractual arrangements with independent motor carriers. The I. C. found the con-

tractual arrangements unsatisfactory, and it was unwilling to enter joint rail-motor arrangements with truckers in the territory.

The reports are in the No. MC-86779 proceeding, Sub-Nos. 6 and 7. They authorize in turn operations over six routes between points in Iowa, Minnesota, and South Dakota; and over three routes out of Freeport, Ill., and one between Minonk, Ill., and La Salle. The authorizations are subject to the usual conditions designed to insure that the trucking operations remain auxiliary to I. C. rail services, including "key point" conditions which forbid highway operations between specified points.

The majority reports represent the views of Chairman Patterson and Commissioner Lee. Commissioner Rogers dissented in both cases, holding with the joint boards that the applications should be denied and the I. C. left to make arrangements with independent truckers. The majority reports pointed out, however, that the commission has no authority to compel coordinated service between rail and motor carriers, nor to compel the I. C. to continue the existing arrangements. Thus the majority felt justified in approving the railroad applications, because more efficient operations and better service would result.

New W.F.A. Transport Head

The War Food Administration has announced the appointment of Edgar B. Black of Buffalo, N. Y., as its director of transportation, succeeding Elwood Chase, who has resigned to return to private business. Since early in the present war Mr. Black has been the Interstate Commerce Commission grain permit agent at Buffalo, where he has been in the grain business for thirty years.

Memphis Labor Dispute Settled

The emergency board, appointed on September 19 by President Roosevelt to consider a dispute between the Union of Memphis, Tenn., and the Brotherhood of Railroad Trainmen and Brotherhood of Locomotive Firemen & Enginemen, has advised the President that the dispute has been settled. It involved the application of a National Railroad Adjustment Board decision regarding the work of yardmasters.

Club Meetings

When the New York Traffic Club next meets in regular monthly session, October 24, at 8:30 p. m., in Hotel Biltmore, New York, E. H. Burgess, chairman, Traffic Executive Committee, Eastern territory, will address the group on the subject "Order or Disorder in Transport Regulation."

The Car Foremen's Association of Omaha, Council Bluffs and South Omaha Interchange is scheduled to meet at 1:30 p. m., November 9, in Burlington station, Omaha, Neb.

Philip H. Hatch, mechanical engineer, N. Y., N. H. & H., will talk about Diesel-electric locomotives on the New Haven, at the October 27, 8:00 p. m. meeting of the New York division of Railroad Enthusiasts, Inc., in Room 2728, Grand Central terminal. A further feature will be the presentation of the new A. A. R. color movie, "Life Line of the Nation."

The Canadian Railway Club meets next at the Mount Royal Hotel, Montreal, on November 13, at 8:00 p. m. Charles Gordon, managing director, American Transit Association, New York, is the scheduled speaker.

The Northwest Car Men's Association will meet November 6, at 8:00 p. m., at the Midway Club, 1931 University Avenue, St. Paul. The speaker is to be C. D. Stewart, director of engineering, Westinghouse Air Brake Company, Wilmerding, Pa., whose topic will be "Repair Track and Train Yard Maintenance."

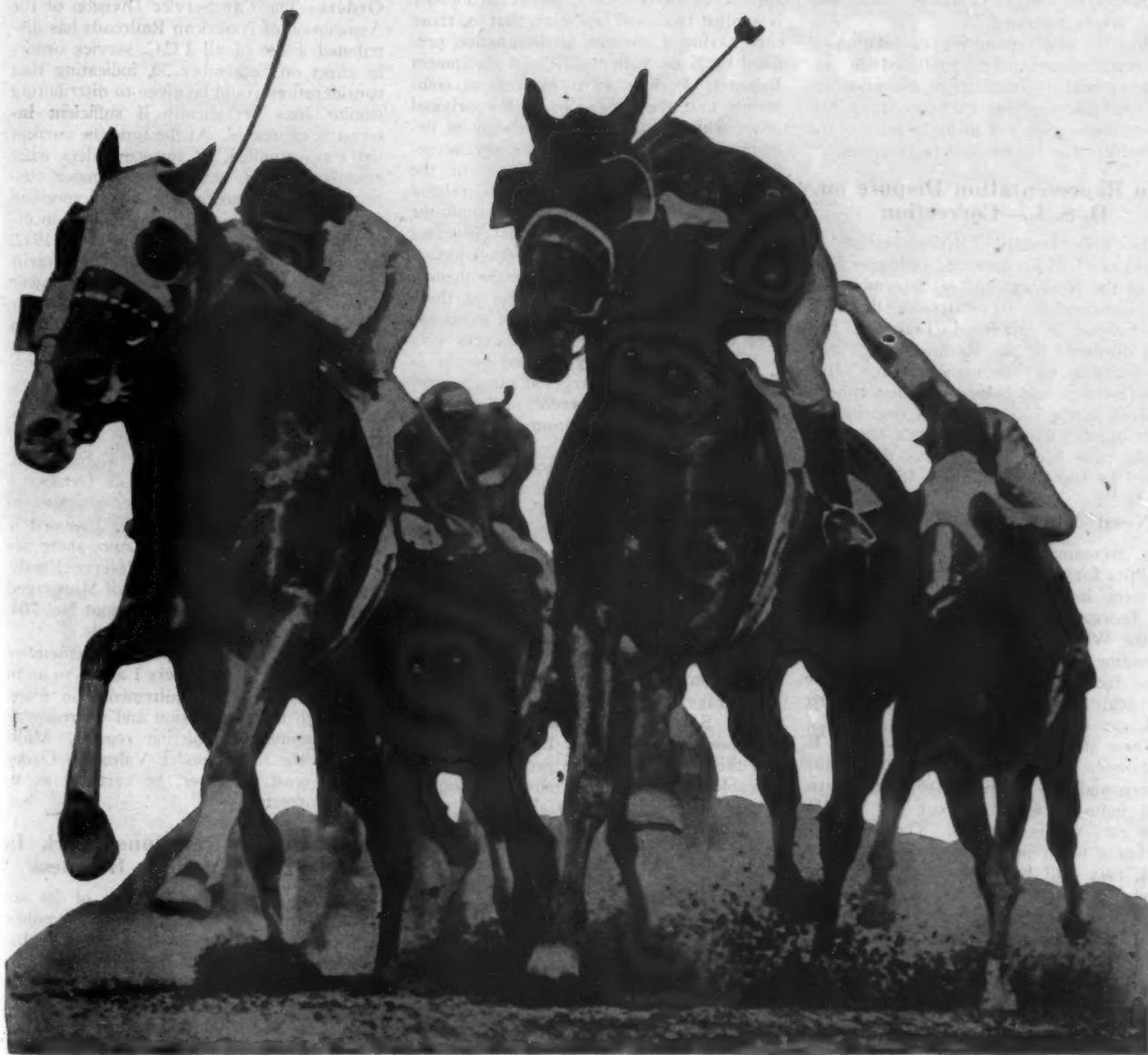
I. C. C. Reverses Itself on Multiple-Loading Rule

Reporting on reconsideration of the I. & S. No. 5268 proceeding, the Interstate Commerce Commission, Division 2, has reversed itself, now condemning as not just and reasonable changes in the multiple-loading rule which the prior report had indicated would be approved. The prior report was reviewed in the *Railway Age* of June 17, page 1178.

As there noted, the proceeding involves proposed changes in Consolidated Freight Classification Rule 33 relating to multiple loading of carload freight. The proposals were made as a result of the railroads' experience under the Office of Defense Transportation's maximum loading orders. They would have placed the responsibility upon consignors for safe loading at origins and restowing and rebracing at intermediate points; and while they proposed continuance of the provision permitting three consignors to consolidate shipments in a single car, they would have reduced the number of origins at which such consolidations could take place from three to one.

The effect of the now reversed finding of the prior report would have been to permit the publication of a "safe loading" requirement which was in softer language than the carriers' proposal but which nevertheless put the responsibility on the consignors. Meanwhile, the prior report condemned the proposed reduction of multiple loading origins from three to one, at the same time, however, advising the carriers to give consideration to a modification which would permit multiple loading by the same shipper in which connection the additional origin or origins "might be limited to those within reasonable distances of the initial origin."

Carriers May Ask Rehearing—The railroads complied with these findings by filing a revised schedule to become effective August 20, but those schedules were suspended upon petition of protestants, and the proceeding was reopened for the reconsideration out of which has come the present report. Its reexamination of the record has now convinced the commission that "the relatively small percentage of multiple loaded cars which require restowing or rebracing by the carriers . . . does not warrant a rule such as was suggested in the prior report." With respect to that part of the proposed rule which would have restricted origin loadings, the present report says that under such a rule, "or even under the form thereof suggested in



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the prior report, there are important groups of shippers who would be unable to consolidate their shipments except at a higher basis of charges than those applicable on shipments of their competitors from the same origin territory."

Thus the order requiring cancelation of the modified schedules published in accordance with the findings of the prior report, and discontinuing the proceeding. The railroads are expected to file a petition for reconsideration by the full commission.

No Representation Dispute on O. S. L.—Correction

The item entitled "Representation of Employees," which appeared on pages 528-529 of the *Railway Age* of September 30, was incorrect in its statement that the Brotherhood of Railroad Trainmen had been displaced as the Railway Labor Act representative of Oregon Short Line yardmen (foremen and helpers). The yardmen involved in the recent election won by the Switchmen's Union of North America should have been identified as those employed by the Chicago Short Line.

Need More Acid Tank Cars

In recommending construction of new facilities for the production of sulfuric acid to meet increased military requirements, the Inorganic Acids Advisory Committee of the War Production Board has urged, according to a W. P. B. statement, that these facilities be located in areas where the acid is needed, in view of existing tank car shortages.

These shortages, according to W. P. B. spokesmen, are expected to become more severe, and they predicted that the sulfuric acid industry will be short 100 to 150 tank cars within 60 days. The War Department has reported that 175 additional tank cars will be required to meet November schedules, and it is expected that combined military and industrial requirements will make it necessary to provide 700 or 800 new tank cars by March of next year, according to this statement.

The new sulfuric acid facilities would be erected in the Chicago and St. Louis, Mo., districts, under the committee's recommendation. The War Department, in addition, was reported to be considering the construction of government owned plants at Charlestown, Ind., and Tyner, Tenn., near Chattanooga.

I. C. C. Revises Demurrage Order—Other Service Orders

Sliding scale demurrage charges to be applied to box cars during the period between October 19 and November 19, as prescribed in Interstate Commerce Commission Service Order No. 242 and reported in *Railway Age* of October 14, page 592, have been further stiffened by Revised Service Order No. 242, dated October 13 and effective for the same period as the previous order. Certain other provisions of the original order have been modified as well.

As revised, the order requires that demurrage charges, after expiration of tariff free time, shall be \$2.20 per day for each of the first two days, \$5.50 for the third

day, \$11.00 for the fourth day, and \$16.50 for each day or fraction thereafter. The top figure was \$11 per day under the original order. While the original order applied to all box cars, the revised order is applied to closed box cars, that is, those cars having a mechanical designation prefixed by X or V in the Official Equipment Register. Perhaps in recognition of complaints that the provisions of the original order which prohibited computation of detention of box cars under average agreements would defeat the purpose of the order by removing an incentive to release cars before the expiration of free time, the revised order has provided that in cases where box cars subject to an average agreement are held beyond free time the demurrage charges shall be the same as those prescribed for other closed box cars, except that the \$2.20 per day charges may be offset or reduced by accrued credits as provided by tariffs. Charges at rates greater than \$2.20 per day, however, still may not be offset through application of such average agreements.

The more drastic demurrage charges were ordered on recommendation of the Office of Defense Transportation, according to an O.D.T. statement, and are intended to discourage delay in loading and unloading cars as the shortage becomes "increasingly acute," the demands for box cars to move military freight and the bumper wheat crop having produced "the tightest box car situation since the beginning of the war." In connection with this prescription of higher demurrage charges the commission also issued Service Order No. 246, effective October 19 to November 19, in effect making the provisions of the general order applicable to intraterminal movements on the State Belt Railroad of California.

Some Other Orders—Revised Service Order No. 112, limiting allowance of free time at destination on refrigerator cars loaded with fresh or green fruits or vegetables, has been further modified by Amendment No. 1, effective October 19, providing that, when the total time of detention after notice of arrival is sent or given consignee until the car is unloaded and released does not exceed 48 hrs., no demurrage charges shall accrue. Before the amendment was issued, free time was not allowed for payment of charges, movement within a switching area, or like reasons, even though the total detention, including unloading, did not exceed 48 hrs.

Service Order No. 245, effective October 15, made an embargo effective on the movement of compressed or uncompressed cotton from points more than 100 miles from Memphis, Tenn., to that destination or West Memphis, Ark., for compression or storage, except on permit issued by the commission's agent. The order does not apply to shipments properly billed for carload consolidation and reshipment, but it does apply not only to carload, but also to truckload, i.e.l. or l.t.l. lots consigned or re-consigned to the points named.

Effective October 14, Service Order No. 218, restricting the movement of oranges from Arizona and California without permit, was vacated by No. 218-A. Service Order No. 175, ordering the routing of certain floating cranes requiring lighterage

delivery at New York harbor, has been set aside by No. 175-A, effective October 20.

A Complete List of All Service Orders—The Car Service Division of the Association of American Railroads has distributed a list of all I.C.C. service orders in effect on September 30, indicating that consideration would be given to distributing similar lists periodically if sufficient interest is expressed. At the time the current list was compiled, 62 service orders were effective, though several were under suspension either indefinitely or to specified future dates. Longest lived of those in effect was No. 68, issued January 30, 1942, which suspended classification and tariff provisions permitting application of lower minimum weights than those provided for the car used and prohibited furnishing two smaller cars in lieu of one larger car ordered.

Accounting and Valuation Orders

The Interstate Commerce Commission, Division 1, has made public an October 6 order making various further changes in the Accounting Classification. Included is a provision consolidating balance-sheet accounts No. 703½, Special Reserve Funds, and No. 704, Deposits in Lieu of Mortgaged Property Sold, into a new account No. 704, Capital and Other Reserve Funds.

Division 2 has made public a September 26 order modifying Orders 1 and 3 so as to eliminate the oath requirements on maps filed with the commission and on roadway and equipment completion reports. Maps filed in the future under Valuation Order No. 1 must, however, be certified as to their correctness.

Why Public Relations Work Is a Duty of Modern Business

The acceptance by business of its responsibility to society and keeping the public informed of the manner in which it is discharging its duties to the community, the state and the people were cited by George A. Kelly, vice-president of the Pullman Company, in an address before the Inter-Mountain Executive's conference on Public Relations at Salt Lake City, Utah, on October 17, as underlying principles essential to future public relations programs.

In dealing with his subject, "Developing a Sound Public Relations Program," he advocated a broad use of advertising, aimed at various correlated objectives.

"Today, in a sense, there is no private business," said Mr. Kelly. "All business is public business, and this has led to the recognition that the general welfare calls for greater progress by business in accepting its responsibilities to society. For business progress depends upon how the men and women of business conduct themselves, how they live and act. This is of great public importance because the standards that guide men and women in their daily actions are the standards that guide civilization.

"What has happened to business in recent years is best summarized in the twofold nature of life in a democracy, where every man is two men, a worker and a



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citizen. So far as business is concerned, he is responsible on the one hand to the particular enterprise of which he is a part, and on the other hand to the community, the state and the people. The common assumption that businessmen are thoughtless of this second responsibility has become a false assumption. For, the creed of enlightened businessmen of the present era, who are coming to be known as business statesmen, is social and economic responsibility. So it is time now to recognize that a new level has been reached; a new and higher standard of social consciousness.

Why Public Needs Information—"The public today asks the various groups of our society to examine their consciences, their attitudes, and their actions to determine whether they really conform to the new demands made upon them by a changing society in which the principles of democracy and free enterprise are still fundamental. Those vested with power in private interest have come to recognize that in discharging their public responsibility there is not only the need, but the necessity, for a new field of action, and this has come to be known as public relations."

Mr. Kelly emphasized that a carefully planned advertising and public relations program was needed to get the story of industry over to the various "publics," which include the stockholders, employees, customers and the civil service public, as well as the public in general. He underscored the thought that an effective public relations program should deal with specific achievements of the company and it should be consistent, telling a connected story time and time again.

"We have learned that the complex mechanism called the 'mass mind' or the 'public mind' really thinks in simple terms, in blacks or whites," he continued. "Either your company is good, or it is not good."

Characteristics of Employee Annuities Change

Certain characteristics of employee annuities have shown clearly defined trends in recent years, according to the October issue of the monthly Review of the Railroad Retirement Board. The number of new annuities certified each year declined steadily from 53,000 in 1937-38 to 15,800 in 1942-43. The average age at retirement decreased from 68.5 in 1936-37 to 65.1 in 1942-43. Annuities which began to accrue in 1942-43 were based on an average of 26.9 years of service, 0.3 of a year higher than the average for 1941-42, reflecting primarily more continuous employment in recent years. The average monthly compensation on which annuities were based showed an increase from \$150.19 in 1937-38 to \$163.37 in 1942-43. Because of the effect of the service and compensation on which they were based, the average annuities certified have increased through the years. In 1937-38 the average annuity certified was for \$64.51, and in 1942-43 it was \$68.95.

In 1939-40, unemployment beneficiaries averaged 100 days of unemployment. The duration of unemployment declined to an average of 74 days in 1941-42 and to 60 days in 1942-43. From the first to the fourth

benefit years the average daily benefit increased from \$2.26 to \$2.85. In 1939-40 the average benefit payment was \$95.35. It rose to \$117.71 in 1941-42, and was \$107.82 in 1942-43. In the first year, 19 of every 100 beneficiaries exhausted their benefits, as compared with 9.5 in 1942-43. The proportion of eligible workers who became beneficiaries declined in each successive 5-year age group over 30. Severity of unemployment, however, as measured by the average number of days of unemployment of the beneficiaries, increased for each successive age group over 30.

Payments under the retirement act reached a record high in August. Of the \$11,651,000 certified to the Treasury, 83 per cent went to employee annuitants, 10 per cent to pensioners, and 7 per cent to survivors. Annuity applications totaled 1,970, the largest number received in any month since April, 1941. The number of employee annuities certified, 1,504, was the largest since February, 1944. At the end of the month there were 140,300 annuitants on the rolls, receiving an average benefit of \$66.62. There were 20,400 pensions in force, at an average of \$59.21 a month. Survivor annuities in force at a monthly rate of \$31.90, numbered 3,709. Death benefit annuities were payable to 556 survivors at an average of \$36.17. The 1,702 lump-sum death benefits certified was the highest figure in over 5 years. The average amount was \$381.61.

Unemployment insurance operations in August showed more activity than in the 3 preceding months. In the first 2 months of the year, however, certificates of benefit rights were issued to only 1,290 qualified railroad workers as compared with 1,520 in July-August a year ago. The number of claims received during the month rose to 1,813, about 500 over the July figure. The number of benefit payments rose more sharply. More than a third of the 1,373 payments, aggregating \$36,700, were for initial periods of unemployment in the current benefit year. The average benefit for initial periods showed a decrease of \$1.04. In contrast, the average payment for subsequent periods increased by the same amount, and for the first time averaged over \$30. New accounts were opened for 515 unemployed workers.

Meetings and Conventions

The following list gives names of secretaries, dates of next or regular meetings and places of meetings:

- ALLIED RAILWAY SUPPLY ASSOCIATION.**—J. F. Gettrust, P. O. Box 5522, Chicago 80, Ill.
- AMERICAN ASSOCIATION OF GENERAL BAGGAGE AGENTS.**—E. P. Soebbing, 1450 Railway Exchange Bldg., St. Louis, Mo.
- AMERICAN ASSOCIATION OF PASSENGER TRAFFIC OFFICERS.**—B. D. Branch, C. R. R. of N. J., 143 Liberty St., New York 6, N. Y.
- AMERICAN ASSOCIATION OF RAILROAD SUPERINTENDENTS.**—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill. Annual meeting May 8-10, 1945, Hotel Stevens, Chicago, Ill.
- AMERICAN ASSOCIATION OF RAILWAY ADVERTISING AGENTS.**—E. A. Abbott, Poole Bros., Inc., 85 W. Harrison St., Chicago, Ill.
- AMERICAN RAILWAY BRIDGE AND BUILDING ASSOCIATION.**—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill.
- AMERICAN RAILWAY CAR INSTITUTE.**—W. C. Tabbert, 19 Rector St., New York 6, N. Y.
- AMERICAN RAILWAY DEVELOPMENT ASSOCIATION.**—P. E. Taylor, A. T. & S. E. Ry., Topeka, Kan. Next meeting, December 14-15, 1944, Palmer House Club Bldg., Chicago, Ill.

- AMERICAN RAILWAY ENGINEERING ASSOCIATION.**—Works in cooperation with the Association of American Railroads, Engineering Division.—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 13-15, 1945, Palmer House, Chicago, Ill.
- AMERICAN RAILWAY MAGAZINE EDITORS' ASSOCIATION.**—Page N. Price, Norfolk & Western Magazine, Roanoke, Va.
- AMERICAN SHORT LINE RAILROAD ASSOCIATION.**—J. P. Nye, Tower Bldg., Washington 5, D. C.
- AMERICAN SOCIETY OF MECHANICAL ENGINEERS.**—C. E. Davies, 29 W. 39th St., New York 18, N. Y.
- RAILROAD DIVISION.**—E. L. Woodward, Railway Mechanical Engineer, 105 W. Adams St., Chicago 3, Ill.
- AMERICAN TRANSIT ASSOCIATION.**—Guy C. Heckler, 292 Madison Ave., New York 17, N. Y.
- AMERICAN WOOD-PRESERVERS' ASSOCIATION.**—H. L. Dawson, 1427 Eye St., N. W., Washington 5, D. C.
- ASSOCIATED TRAFFIC CLUBS OF AMERICA, INC.**—R. A. Ellison, Cincinnati Chamber of Commerce, 1203 C. of C. Bldg., Cincinnati 2, O.
- ASSOCIATION OF AMERICAN RAILROAD DINING CAR OFFICERS.**—F. R. Borger, C. I. & L. Ry., 836 S. Federal St., Chicago 5, Ill.
- ASSOCIATION OF AMERICAN RAILROADS.**—H. J. Foster, Transportation Bldg., Washington 6, D. C.
- Operations and Maintenance Department.**—Charles H. Buford, Vice-President, Transportation Bldg., Washington 6, D. C.
- Operating-Transportation Division.**—L. R. Knott, 59 E. Van Buren St., Chicago 5, Ill.
- Operating Section.**—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
- Transportation Section.**—H. A. Eaton, 59 E. Van Buren St., Chicago 5, Ill.
- Communications Section.**—W. A. Fairbanks, 30 Vesey St., New York 7, N. Y.
- Fire Protection and Insurance Section.**—W. F. Steffens, New York Central, Room 3317, 230 Park Avenue, New York 17, N. Y.
- Freight Station Section.**—N. Kaplan, 59 E. Van Buren St., Chicago 5, Ill.
- Medical and Surgical Section.**—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
- Protective Section.**—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
- Safety Section.**—J. C. Caviston, 30 Vesey St., New York 7, N. Y.
- Engineering Division.**—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 13-15, 1945, Palmer House, Chicago, Ill.
- Construction and Maintenance Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill. Annual meeting, March 13-15, 1945, Palmer House, Chicago, Ill.
- Electrical Section.**—W. S. Lacher, 59 E. Van Buren St., Chicago 5, Ill.
- Signal Section.**—R. H. C. Balliet, 30 Vesey St., New York 7, N. Y.
- Mechanical Division.**—Arthur C. Brown, 59 E. Van Buren St., Chicago 5, Ill.
- Electrical Section.**—J. A. Andreucetti, 59 E. Van Buren St., Chicago 5, Ill.
- Purchases and Stores Division.**—W. J. Farrell, (Executive Vice-Chairman), Transportation Bldg., Washington 6, D. C.
- Freight Claim Division.**—Lewis Pilcher, 59 E. Van Buren St., Chicago 5, Ill.
- Motor Transport Division.**—George M. Campbell, Transportation Bldg., Washington 6, D. C.
- Car Service Division.**—E. W. Coughlin, (Assistant to Chairman), Transportation Bldg., Washington 6, D. C.
- Finance, Accounting, Taxation and Valuation Department.**—E. H. Bunnell, Vice-President, Transportation Bldg., Washington 6, D. C.
- Accounting Division.**—E. R. Ford, Transportation Bldg., Washington 6, D. C.
- Treasury Division.**—E. R. Ford, Transportation Bldg., Washington 6, D. C.
- Traffic Department.**—A. F. Cleveland, Vice-President, Transportation Bldg., Washington 6, D. C.
- ASSOCIATION OF RAILWAY CLAIM AGENTS.**—F. L. Johnson, Alton R. R., 340 W. Harrison St., Chicago 7, Ill.
- BRIDGE AND BUILDING SUPPLY MEN'S ASSOCIATION.**—P. R. Austin, Johns-Manville Sales Corp., Merchandise Mart, Chicago, Ill.
- CANADIAN RAILWAY CLUB.**—C. R. Crook, 4415 Marcell Ave., N. D. G., Montreal, Que. Regular meetings second Monday of each month, except June, July and August, Windsor Hotel, Montreal, Que.
- CAR DEPARTMENT ASSOCIATION OF ST. LOUIS, MO.**—J. J. Sheehan, 1101 Missouri Pacific Bldg., St. Louis, Mo. Regular meetings, third Tuesday of each month, except June, July and August, Hotel De Soto, St. Louis, Mo.
- CAR DEPARTMENT OFFICERS' ASSOCIATION.**—F. H. Stremmel, 6536 Oxford Ave., Chicago 31, Ill.

CAR FOREMEN'S ASSOCIATION OF CHICAGO.—Ralph J. Feddor, 2803 N. Campbell Ave., Chicago, Ill. Regular meetings, second Monday of each month, except June, July and August, La Salle Hotel, Chicago, Ill.

CENTRAL RAILWAY CLUB OF BUFFALO.—R. E. Madh, 1840-42 Hotel Statler, McKinley Square, Buffalo, N. Y. Regular meetings, second Thursday of each month, except June, July and August, Hotel Statler, Buffalo, N. Y.

EASTERN ASSOCIATION OF CAR SERVICE OFFICERS.—H. J. Hawthorne, Union Railroad, East Pittsburgh, Pa.

EASTERN CAR FOREMAN'S ASSOCIATION.—W. P. Dizard, 30 Church St., New York 7, N. Y. Regular meetings, second Friday of January, February (Annual Dinner), March, April, May, October and November, 29 W. 39th St., New York, N. Y.

LOCOMOTIVE MAINTENANCE OFFICERS' ASSOCIATION.—L. M. Lipscomb, 1721 Parker Street, North Little Rock, Ark.

MASTER BOILER MAKERS' ASSOCIATION.—A. F. Stiglmeier, 29 Parkwood St., Albany 3, N. Y.

NATIONAL ASSOCIATION OF RAILROAD AND UTILITIES COMMISSIONERS.—Ben Smart, 7413 New Post Office Bldg., Washington, D. C.

NATIONAL ASSOCIATION OF SHIPPERS' ADVISORY BOARDS.—C. J. Goodyear, 725 Reading Terminal, Philadelphia 5, Pa. Annual meeting, October 18, 1944, Hotel Stevens, Chicago, Ill.

NATIONAL INDUSTRIAL TRAFFIC LEAGUE.—Edward F. Lacey, Suite 450, Munsey Bldg., Washington 4, D. C. Annual meeting, November 16-17, 1944, Hotel Pennsylvania, New York, N. Y.

NATIONAL RAILWAY APPLIANCE ASSOCIATION.—C. H. White, Room 1826, 208 S. La Salle St., Chicago 4, Ill.

NEW ENGLAND RAILROAD CLUB.—W. E. Cade, Jr., 683 Atlantic Ave., Boston, Mass. Regular meetings, second Tuesday of each month, except June, July, August and September, Hotel Vendome, Boston, Mass.

NEW YORK RAILROAD CLUB.—D. W. Pye, 30 Church St., New York 7, N. Y. Regular meetings, third Thursday of each month, except June, July, August, September and December, 29 W. 39th St., New York, N. Y.

NORTHWEST CARMEN'S ASSOCIATION.—E. N. Myers, Minnesota Transfer Ry., 1434 Iowa Ave., St. Paul, Minn. Regular meetings, first Monday of each month, except June, July and August, Midway Club, 1931 University Ave., St. Paul, Minn.

PACIFIC RAILWAY CLUB.—William S. Woltner, P. O. Box A, Sausalito, Cal. Regular meetings, second Thursday of each alternate month, at Palace Hotel, San Francisco, Cal., and Hotel Biltmore, Los Angeles, Cal.

RAILWAY BUSINESS ASSOCIATION.—P. H. Middleton, First National Bank Bldg., Chicago 3, Ill.

RAILWAY CLUB OF PITTSBURGH.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa. Regular meetings, fourth Thursday of each month, except June, July and August, Fort Pitt Hotel, Pittsburgh, Pa.

RAILWAY ELECTRIC SUPPLY MANUFACTURERS' ASSOCIATION.—J. McC. Price, Allen-Bradley Company, 624 W. Adams St., Chicago 6, Ill.

RAILWAY FUEL AND TRAVELING ENGINEERS' ASSOCIATION.—T. Duff Smith, Room 811, Utilities Bldg., 327 S. La Salle St., Chicago 4, Ill.

RAILWAY SUPPLY MANUFACTURERS' ASSOCIATION.—J. D. Conway, 308 Keenan Bldg., Pittsburgh, Pa.

RAILWAY TELEGRAPH AND TELEPHONE APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with Communications Section of A. A. R.

RAILWAY TIE ASSOCIATION.—Roy M. Edmonds, 610 Shell Bldg., St. Louis 3, Mo.

ROADMASTERS' AND MAINTENANCE OF WAY ASSOCIATION.—Miss Elinor Heffern, Room 839, 310 S. Michigan Ave., Chicago 4, Ill.

SIGNAL APPLIANCE ASSOCIATION.—G. A. Nelson, Waterbury Battery Company, 30 Church St., New York 7, N. Y. Meets with A. A. R. Signal Section.

SOUTHERN AND SOUTHWESTERN RAILWAY CLUB.—A. T. Miller, 4 Hunter St., S. E., Atlanta, Ga. Regular meetings, third Thursday in January, March, May, July, September and November, Ansley Hotel, Atlanta, Ga.

SOUTHERN ASSOCIATION OF CAR SERVICE OFFICERS.—D. W. Brantley, C. of Ga., Savannah, Ga.

TORONTO RAILWAY CLUB.—D. M. George, P. O. Box 8, Terminal "A," Toronto 2, Ont. Regular meetings, fourth Monday of each month, except June, July and August, Royal York Hotel, Toronto, Ont.

TRACK SUPPLY ASSOCIATION.—Lewis Thomas, Q. and C. Company, 59 E. Van Buren St., Chicago 5, Ill.

UNITED ASSOCIATIONS OF RAILROAD VETERANS.—Roy E. Collins, 112 Hatfield Place, Port Richmond, Staten Island 2, N. Y.

WESTERN RAILWAY CLUB.—E. E. Thulin, Suite 339, Hotel Sherman, Chicago, Ill. Regular meetings, third Monday of each month, except January, June, July, August and September, Hotel Sherman, Chicago, Ill.

U. P. Coal Company Elects New Officers

Eugene McAuliffe, president of the Union Pacific Coal Company, Omaha, Neb., has been elected chairman of the board and has been succeeded by I. N. Bayless, general manager, as president and general manager, effective November 1. George B. Pryde, vice-president of operation, has retired. H. C. Livingston and Vernon O. Murray, general superintendents, have been promoted to assistant general managers and the positions of general superintendents have been abolished.

Supply Trade

John S. Hutchins, vice-president in charge of sales of the Ramapo Ajax division of the American Brake Shoe Company, has been appointed to the newly-created position of executive vice-president of the division. Following his graduation from Yale University in 1925, Mr. Hutchins joined the operating and engineering de-



John S. Hutchins

partment of Ramapo Ajax. He subsequently served in the sales department and was sales manager for two years before his elevation to a vice-presidency.

The Silent Hoist & Crane Co. has been awarded its fourth Army-Navy "E" in recognition of continued meritorious production achievement.

The U. S. Wind Engine & Pump Co., Batavia, Ill., a subsidiary of Batavia Metal Products, Inc., has shortened its name to the U. S. Engine & Pump Co.

J. B. Kintner, manager of sales for the Union Steel Castings division of the Blaw-Knox Company, has been promoted to vice-president of the division.

The Macwhythe Wire Rope Company of Kenosha, Wis., received its third Army-Navy "E" award on October 7 for continued meritorious production achievement.

Charles H. Slaughter has been appointed national sales manager for the Thomas Machine Manufacturing Company, Pittsburgh, Pa. Mr. Slaughter re-

ceived his education in mechanical engineering at the Carnegie Institute of Technology and the Virginia Polytechnical Institute. He also was graduated from Cumberland University with a law degree. He began his industrial career as engineer and de-



Charles H. Slaughter

signer for the American Steel & Wire Co., the Carnegie-Illinois Steel Corporation, and the Jones & Laughlin Steel Corp. and subsequently established his own machine tool agency in Texas. He later was appointed general sales manager of the former Wilmarth & Morman Co. of Grand Rapids, Mich. and general manager of the Kent Machine Company, Cuyahoga Falls, O. Before joining the Thomas Machine Manufacturing Company, he served as general sales and dealer relations manager for Liberty Plans, Inc., Hamilton, O.

Allison L. Bayles, director of research and development for the Rogers Diesel & Aircraft Corp., has been elected vice-president of the American Engineering Company, Philadelphia, Pa.

Robert Courtney has been appointed branch manager of a new office opened by the General Controls Company, Glendale, Cal., at 421 Southwest Boulevard, Kansas City, Mo. The new branch will serve customers in Kansas and in adjacent areas in Missouri, Nebraska and Iowa.

C. E. Plass, chief research engineer of the electrical cable works at the American Steel & Wire Co.'s South Works in Worcester, Mass., has been appointed district engineer in the electrical sales division of the company's Chicago office. Victor Siegfried, an instructor in electrical engineering at Worcester Polytechnic Institute since 1933, has been appointed to succeed Mr. Plass as chief research engineer of the electrical cable works.

At the request of the government, the Baldwin Locomotive Works is letting out among several hundred sub-contractors, orders for parts for locomotives now under construction for the government, in order to aid small business in many areas and so spread employment. The orders call for boilers, ashpans, tender frames, dome casings, cabs, steam pipe rings, throat jackets, frame crossies, spark pipes, valve motion forgings, cylinders, connecting rods,

LOCOMOTIVES THAT ARE MAKING HISTORY



Forty of these 2-8-4's just completed for C & O

THE LARGE picture shows the newest of a long series of locomotives built by American Locomotive Company for the C & O.

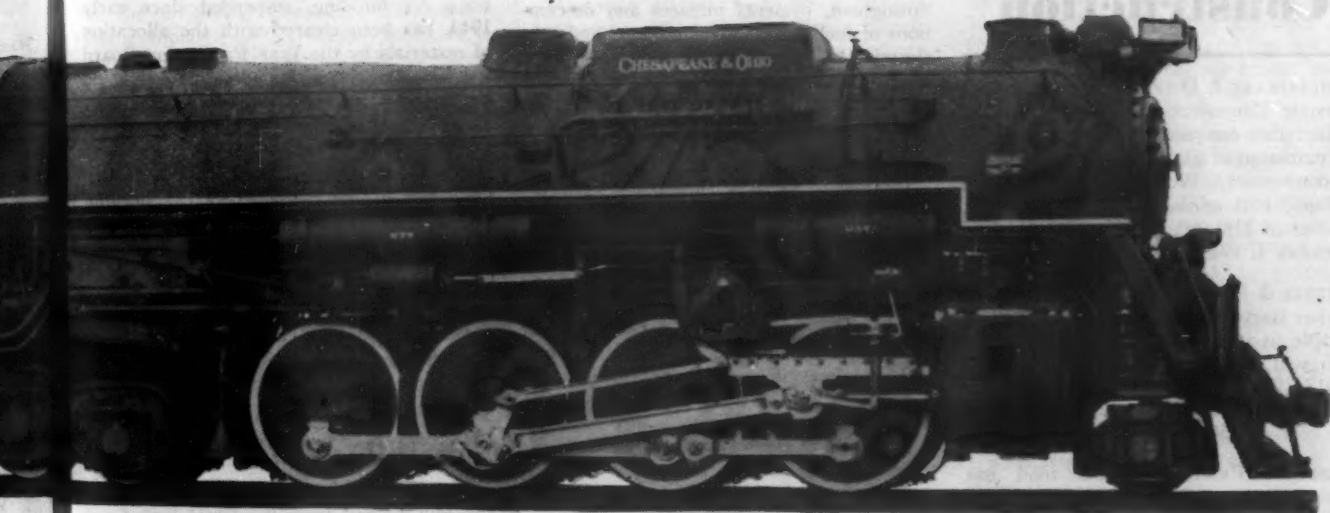
The small picture shows a locomotive that was, in its day, an outstanding design. It was built by American Locomotive Company for this road, 33 years ago.

During these 33 years locomotive improvements developed by this company have strongly influenced and fostered American railroad progress.

Here are the "SPECS":

Weight on Drivers	292,000 lbs.
Weight of Engine	460,000 lbs.
Cylinders	26 x 34 in.
Diameter of Drivers	69 in.
Boiler Pressure	245 lbs.
Tractive Power	69,350 lbs.
Tender Type	12-Wheeled

Locomotive designs developed by American Locomotive Company have been, are, and will continue to be powerful factors in American railroad operating efficiency and economy.



● **Unsurpassed for the Job because Built for the Job**



American Locomotive

NEW YORK

DIESEL-ELECTRIC • ELECTRIC • STEAM

pipe nipples, boiler test studs, reverse links and others. The great need for locomotives developed in early 1943. Since then Baldwin has searched the industrial east and middle west for firms capable of turning out parts for these engines. When a plant has been chosen, trained Baldwin men remain on the scene to coach executives and foremen and stay as long as is necessary to smooth out production schedules.

R. P. M. Carmody has been appointed sales representative in the Buffalo, N. Y., area for the storage battery division of the **Philco Corporation**, with headquarters in the Ellicott Square Building, Buffalo. Mr. Carmody began his career with the Westinghouse Electric & Manufacturing Co. and subsequently was in charge of electrical and mechanical work for the Buffalo Steel Car Company. He formed his own agency to handle electrical and associated equipment in 1936.

Construction

CHESAPEAKE & OHIO.—Division 4 of the Interstate Commerce Commission has authorized this company to construct a 1.8-mile extension of its West Fork subdivision in Boone county, W. Va., to reach an undeveloped coal mining area. Construction, at a cost of \$181,000, is to be completed by November 1, 1945.

DENVER & RIO GRANDE WESTERN.—This road has started the installation of a 130-ft. turntable at its Pueblo, Colo., roundhouse which will replace a 100-ft. unit installed in 1917. The work is being done by the American Bridge Company at an approximate cost of \$50,000.

MISSOURI PACIFIC.—This road has awarded a contract to the McGeorge Contracting Company, Pine Bluff, Ark., for the raising of 7,500 ft. of track a distance of seven feet on a stretch of road two miles north of Woodson, and 18 miles southeast of Little Rock, Ark. The job is being undertaken to avoid future damage from Arkansas River flood waters. The Missouri Pacific has also completed plans to replace a 581-ft. untreated timber trestle near Rio Vista, Ark., and a 225-ft. untreated timber trestle near Hamlin, Ark., with re-inforced concrete trestles 583-ft. and 252-ft. respectively.

SEABOARD AIR LINE.—This railroad has authorized construction of an industry spur and side track, at estimated cost of \$102,000, at Boyette, Fla., and the construction of fuel and water lines and drain pipes, at estimated cost of \$24,000, and of a passenger subway, butterfly shed and paving, at estimated cost of \$42,000, at Hamlet, N. C.

SOUTHERN.—This railroad has authorized construction of a mechanical coaling station at Lumber City, Ga., at estimated cost of \$30,800. The closing date for bids on the project has not been set.

SOUTHERN PACIFIC.—This road has awarded a contract, amounting to approximately \$100,000, to Waale-Camplan, for the

remodeling of its freight terminal at Portland, Ore. The work will include replacing the present wood floor with one of concrete.

SOUTHERN PACIFIC LINES IN TEXAS AND LOUISIANA.—This road has recently started an improvement program in connection with its enginehouse at San Antonio, Tex., to provide better engine terminal facilities at that point. Included in the work will be the relocation of several existing buildings, rearrangement of engine terminal trackage, extension of engine pits and drop table pits, and the installation of six frame and metal enginehouse stalls obtained from another location where they are no longer needed.

TRADE PUBLICATIONS

LIQUID HANDLING CATALOG.—Bowser, Inc., Fort Wayne, Ind., has recently published a new catalog dealing exclusively with equipment for handling railroad liquids. The 20-page booklet, which is illustrated throughout, presents pictures and descriptions of fueling systems for Diesel and gas-electric locomotives, unloading systems for bulk receipts, lubricating oil systems, printing delivery systems for accounting control, metering equipment, barrel and can filling units, rotary power pumps and other units.

HEATING AND AIR CONDITIONING CONTROL.—An interesting and informative 80-page illustrated booklet called "The Who, When, Where, Why, What and How of the Sylphon Control System for Railway Passenger Car Heating and Air Conditioning," has been published by the Fulton Sylphon Company, Philadelphia, Pa. It explains why and how the equipment was developed, what it consists of, where it is used and how it works. The control is designed for all types of heating and cooling systems and is made to conform with all conceptions of how control should be affected.

Equipment and Supplies

LOCOMOTIVES

The **PENNSYLVANIA** has ordered one Diesel-electric road locomotive of 4,000 hp. from the Electro-Motive division of the General Motors Corporation. The Pennsylvania has no Diesel road locomotives and ordered the 4,000-hp. engine to experiment with it.

FREIGHT CARS

The **CENTRAL OF GEORGIA** is reported to be in the market for 100 to 200 50-ton pulpwood cars.

The **CHICAGO, BURLINGTON & QUINCY** has issued inquiries for parts for 650 55-ton hopper cars and 100 70-ton hopper cars which the railroad plans to build in its own shops.

The **CHICAGO, ST. PAUL, MINNEAPOLIS & OMAHA** is inquiring for 400 40½-ft.

steel-sheathed box cars of 50 tons' capacity and 100 steel hopper cars of 50 tons' capacity.

The **FERROCARRIL DE ANTIOQUIA**, Colombia is reported to be inquiring here for 48 gondola cars of 77,100 lb. capacity.

C. & N. W. Inquiring For 2,500 Freight Cars

The **Chicago & North Western** has issued inquiries for a total of 2,500 new freight cars including the following: 400 box cars of 50 tons' capacity; 1,000 hopper cars of 70 tons' capacity; 100 hopper cars of 50 tons' capacity; 750 high-side gondola cars of 70 tons' capacity and 250 70-ton ballast cars.

PASSENGER CARS

First Passenger Car Building Cleared by W. P. B.

The way for resumption of passenger-train car building, suspended since early 1942, has been cleared with the allocation of materials by the War Production Board for 40 aluminum and 15 steel cars now on order with the American Car & Foundry Co. The a.c.f. St. Charles, Mo., plant, where the cars will be built, has been declared not now in a No. 1 critical labor area. Included in the cars authorized for building are 2 steel baggage-express cars for the Western of Alabama, 16 aluminum coaches and 4 aluminum partitioned coaches for the Louisville & Nashville, 6 steel baggage-express cars and 2 baggage-mail cars for the Central of Georgia, 20 aluminum baggage-coach cars for the New York Central and 5 steel baggage cars for the Nickel Plate.

IRON AND STEEL

The **NORFOLK SOUTHERN** has ordered 592 net tons of rail from the Bethlehem Steel Company.

SIGNALING

The **ST. LOUIS SOUTHWESTERN** has placed an order with the Union Switch & Signal Co. covering the signal material for remote control signaling at Mount Pleasant, Tex., involving a B-30 control machine for controlling the functions from the depot, with style H-2 searchlight high and dwarf signals, style M-2 electric switch layout, relays, rectifiers and housings. The construction work will be done by the railway company's forces.

The **ST. LOUIS SOUTHWESTERN** has ordered from the Union Switch & Signal Co. a 4-lever S. & F. interlocking machine with rail locks, bridge locks and bridge circuit controllers, with fittings and connections for the protection of the White River drawbridge at Clarendon, Ark. The railway's forces will do the field construction work.

The **ATLANTIC COAST LINE** has placed an order with the Union Switch & Signal Co. for materials for centralized traffic control from North Petersburg, Va., of the switch and signals at the end of double track north of Collier. This involves en-

largement of the existing control machine and additional code equipment, as well as style T-21 hand-throw switch layouts with electric locks, style M-22B electric switch layout, relays, housings and rectifiers. The installation will be done by the railroad company's construction forces.

Financial

ALABAMA, TENNESSEE & NORTHERN.—Reorganization Expenses.—Division 4 of the Interstate Commerce Commission has approved a maximum limit of \$22,400 on expenses incurred and to be incurred by this road's reorganization committee, exclusive of counsel fees and fees and expenses of the committee's secretary, in making the reorganization effective.

ARKANSAS.—R. F. C. Loan.—Division 4 of the Interstate Commerce Commission has authorized the Arkansas Railroad to borrow on a first mortgage \$63,039 from the Reconstruction Finance Corp. in order to complete reconstruction of its track and to make improvements. Repayment is to be made over a 10-year period, and the loan is to be guaranteed by the road's president and supported by collateral to be deposited by him.

CENTRAL OF NEW JERSEY.—Tax Issue Adjudication.—The United States district court at Newark, N. J., has agreed to appoint a special master in connection with the petition by trustees of the Jersey Central for a judicial decision concerning the tax claims of the State of New Jersey. (See *Railway Age* of August 19, page 322). The Central of New Jersey bondholders' protective committee, members of which own \$14,827,500 of the railroad's bonds, and the Central Hanover Bank & Trust Co., trustee under the debtor's general mortgage, had filed a brief supporting the petition of the trustees.

CHICAGO, BURLINGTON & QUINCY.—Equipment Trust Certificates.—This company has invited bids for the purchase of \$1,520,000 of equipment trust certificates to be dated November 1, 1944, and to mature in 40 equal quarterly installments from February 1, 1945, to November 1, 1954. (Previous item in *Railway Age* of October 7, page 566.)

MAINE CENTRAL.—Refinancing.—This company has applied to the Interstate Commerce Commission for authority to issue \$9,000,000 of series B 4 per cent first mortgage and collateral bonds, due in 1954, and for exemption from the commission's competitive bidding requirements in the disposition thereof. The proceeds are to be employed to retire \$9,878,000 of series A 4 per cent first mortgage and collateral bonds, due in 1945, the difference to be made up from cash in the company's treasury. Arrangements have been made for private sale of the new issue, the application stated, with the John Hancock Mutual Life Insurance Co. taking \$3,000,000, the

Aetna Life Insurance Co. taking \$1,500,000, and Kidder, Peabody & Co., as underwriters, taking the balance, all at 98½. Exemption from the competitive bidding requirement was asked on the ground that the road's securities have not been generally distributed, but are largely held in the territory it serves, and that a canvass of investment houses indicated that terms less favorable than those reached with the prospective buyers would result from solicitation of competitive bids.

MISSOURI-ILLINOIS.—Refinancing.—Division 4 of the Interstate Commerce Commission has authorized this road to issue a \$750,000 two per cent promissory note, payable in monthly installments of \$12,500, to the Boatmen's National Bank at St. Louis, Mo., in evidence of a loan in that amount to be applied, together with cash in the road's treasury, to the redemption at 105 of \$1,177,500 of first mortgage five per cent bonds.

MISSOURI PACIFIC.—Interest Payment Authorized.—The United States district court at St. Louis, Mo. has authorized payment of \$18,194,550 in overdue interest to Missouri Pacific bondholders. Of this amount, \$13,159,525, representing two six-month interest coupons, will be paid to Missouri Pacific first and refunding bondholders; \$3,425,025, representing three six-month interest coupons, will be paid to holders of New Orleans, Texas & Mexico first mortgage and non-cumulative income bonds; and \$1,610,000, representing two six-month accruals, will go to holders of International-Great Northern first mortgage bonds. Attorneys for holders of \$900,000 of 5¼ per cent serial gold bonds had objected to the payment, contending that the best interests of the road would be served by reducing the bonded indebtedness itself instead of paying the accrued interest at this time.

NEW YORK, CHICAGO & ST. LOUIS.—Collateral Loan.—On October 13 the Nickel Plate awarded, subject to Interstate Commerce Commission approval, \$10,000,000 of five-year promissory notes to the Manufacturers Trust Company of New York at an interest rate of 1.745 per cent. The notes will be secured initially by \$12,500,000 market value of Nickel Plate refunding 4½ per cent bonds and certificates of deposit for 50,000 shares of Wheeling & Lake Erie stock. Proceeds of the loan, together with approximately \$5,300,000 of treasury cash, will be used to pay off the outstanding \$15,188,000 of the company's extended first 3½ per cent bonds due October 1, 1947.

In announcing the award, J. W. Davin, president, said that redemption of the \$15,188,000 of 3½s will mean an important saving in interest cost, besides a further reduction of mortgage debt and elimination of the 3½s before the near approach of their maturity. Completion of the transaction will bring the road's non-equipment debt down to \$102,433,000, compared with \$151,087,000 at the beginning of 1937, making a total reduction of \$48,654,000, or 32 per cent, since that time.

Retirement of the 3½s is designed to lay the foundation for a refunding operation under which it is hoped a new series of

approximately \$42,000,000 of low-interest-rate refunding mortgage bonds, which would then be a first mortgage on the entire system of approximately 1,700 miles, may be substituted for the \$6,500,000 of first 4s of 1950, the \$26,058,000 of refunding 5½s of 1974, and the \$10,000,000 collateral loan. The 4s of 1950 can be redeemed at par but only upon an interest date following six-months' notice. The refunding 5½s can be redeemed at 107½ on an interest date following sixty-days' notice. Upon completion of the transactions now proposed, it is hoped that the \$59,875,000 of refunding 4½s of 1978, which will then also be a part of the first mortgage on the entire system, can be refunded at a lower rate of interest. (Previous item in *Railway Age* of October 7, page 566.)

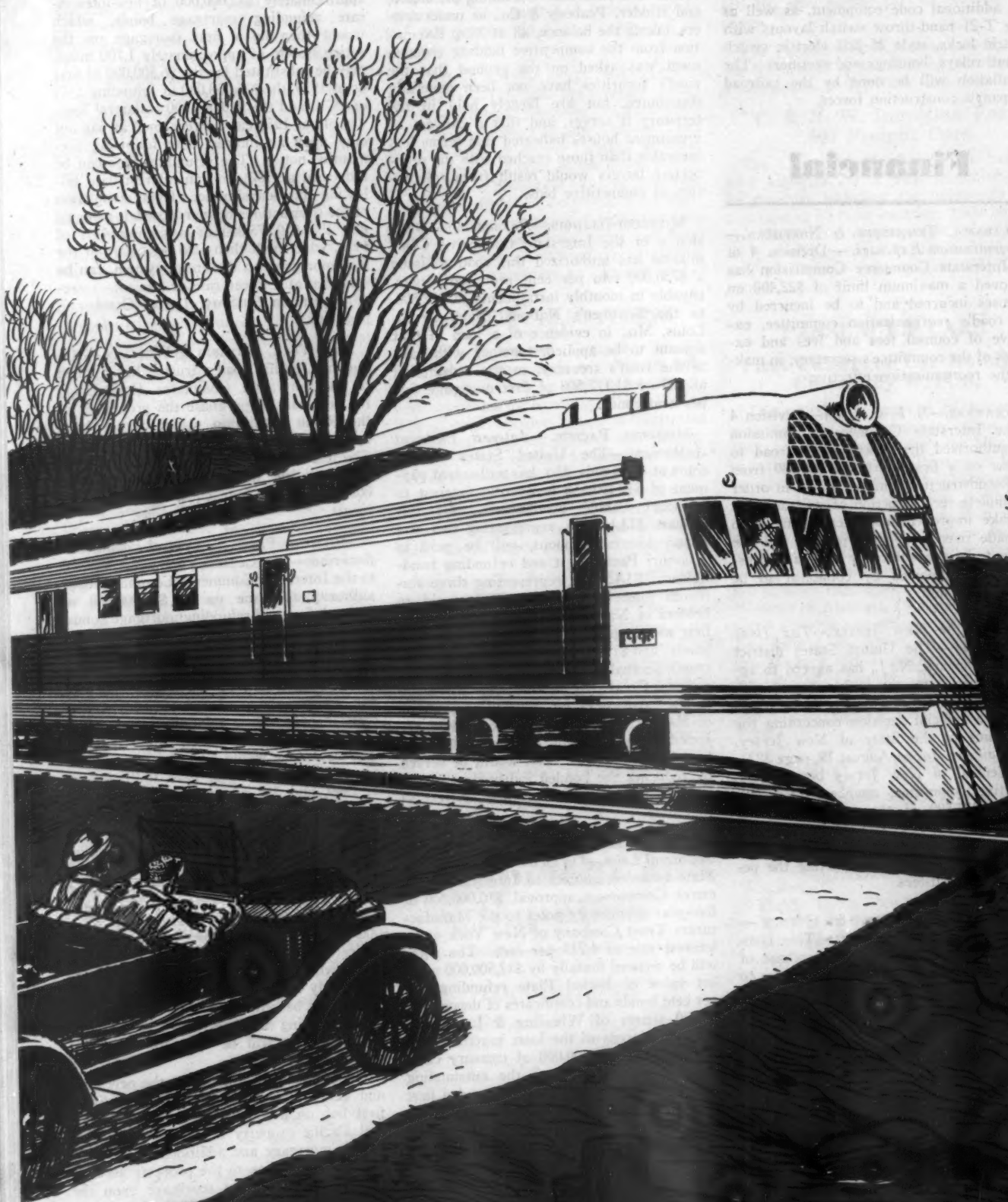
NEW YORK, ONTARIO & WESTERN.—Acquisition.—This road's trustee has applied to the Interstate Commerce Commission for authority to purchase the properties of the Rome & Clinton, which it has been operating under a sub-lease for many years. The lessee is the Delaware & Hudson. The 12.76-mile line would be acquired for \$20,000, payable in four equal annual installments.

SOUTHERN PACIFIC.—Central Pacific Refinancing.—The Central Pacific has applied to the Interstate Commerce Commission for authority to issue up to \$50,000,000 of series A first and refunding mortgage bonds, due in 1974, and the Southern Pacific has joined in the application as prospective guarantor as to interest and principal. The new bonds would be exchanged, par for par, for a portion of the company's non-callable outstanding refunding mortgage 4 per cent gold bonds, due on August 1, 1949. The new issue would bear 4¼ per cent interest from the date of issue until August 1, 1949, and 3½ per cent from then until maturity.

A. T. Mercier, president of the Southern Pacific, stated that there are outstanding in the hands of the public \$88,211,000 of Central Pacific first refunding mortgage bonds and that the management's plans provide for refunding not more than \$70,000,000 and paying off the balance at maturity in 1949. Although \$70,000,000 of bonds will be available under the new mortgage, only the \$50,000,000 of new mortgage bonds will be offered to holders of present first refunding mortgage bonds at this time and the offer will be open for a limited period.

Under the refunding plans, the new first and refunding mortgage will be a direct first lien on a substantial amount of Central Pacific property not presently subject to any mortgage and additionally will succeed as a first lien to the property secured by the first refunding mortgage upon the discharge of the latter in 1949 (meanwhile being in part a collateral first lien thereon). The new mortgage bonds also would be a collateral first lien on other property of the Central Pacific including that portion of the overland route crossing Great Salt Lake. This last railroad was subject to a first mortgage of \$10,000,000 but the bonds issued thereunder were called for redemption on October 1 of this year.

Mr. Mercier mentioned in connection



1934

WHEN TRAIN SPEEDS WENT TO 100 MPH BRAKE TRANSMISSION SPEEDS WENT TO 186,000 MPS

There is one thing that Westinghouse equipment has never put the brakes on; that's railroad progress.

Each step forward in transportation has found a new brake development, tailored to the job, ready and waiting.

When the streamlined passenger trains appeared, with their high road and terminal-to-terminal speeds, their brake action had to be given wings, too.

The unusual braking problem was solved by a three phase system embodying a primary straight air system, providing high flexibility; a secondary automatic air brake system, conferring high-pressure emergency features; and a safety control system, electro-pneumatically interlocked with the two basic systems. First applied in 1934, it has been improved and refined to a high state of present development, in the HSC.

The HSC brake functions "like a flash." It automatically proportions the braking power to the speed, producing maximum usable retardation at all speeds and avoiding over-braking at low speeds. Decelostat equipment, also available, automatically releases the brakes when bad rail conditions are encountered, restoring braking action instantly when rail condition becomes normal.

75 Years of Pioneering

WESTINGHOUSE AIR BRAKE COMPANY, WILMERDING, PA.

HSC equipment is currently serving on 75 high-revenue passenger-liners, operated by 16 railway systems. Any post-war thinking should include consideration of the HSC on tight-schedule passenger runs.

1869



1944

TO PERMIT TODAY'S TRAINS TO

MOVE AT SHORTER INTERVALS

WITH HEAVIER LOADS AT HIGHER

SPEED—SAFELY.

with the proposed refunding that the curtailment of the amount of outstanding bonds to be provided for thereunder is in harmony with the program involving debt reduction and reduced fixed charges upon which the company has been engaged in recent years. On January 1, 1944, the company redeemed the balance of \$29,009,000 of its 3¾ per cent bonds due in 1946. On October 1 the company redeemed its through short line bonds, of which there were \$9,640,000 in the hands of the public, at 107½ and it has called for redemption on December 1, \$16,303,000 of Southern Pacific-Central Pacific stock collateral bonds in the hands of the public. Total debt reduction since early 1940, including the foregoing but exclusive of changes in serial equipment obligations, amounts to \$190,000,000 or more than 25 per cent, which reduction is chiefly responsible for a decrease in annual fixed charges of more than \$7,300,000, or 23 per cent below the 1939 level.

SPOKANE, PORTLAND & SEATTLE.—Merger of Subsidiary.—This company, controlled by the Northern Pacific and Great Northern through joint ownership of its stock, has applied to the Interstate Commerce Commission for authority to merge the United Railways properties into its own and to liquidate United, which it controls through ownership of its stock.

WABASH.—Refinancing.—On October 18, the Wabash rejected a bid for its \$47,000,000 issue of first mortgage bonds, series B, made by Kuhn, Loeb & Co. and associates of 100.055 with a 3¾ per cent coupon. This was the only bid submitted in response to the railroad's invitation. As noted in this column in the October 7 issue, page 567, the proceeds, together with cash, were to be used to retire at 101½ on January 1, 1945, the entire \$47,354,300 issue of first mortgage 4 per cent bonds, series A.

Average Prices of Stocks and Bonds

	Oct. 17	Last week	Last year
Average price of 20 representative railway stocks..	42.01	41.79	37.62
Average price of 20 representative railway bonds..	90.14	89.83	80.00

Dividends Declared

Elmira & Williamsport.—\$1.14, semi-annually, payable November 1 to holders of record October 20.

Texas & Pacific.—common (year-end), \$1.00, payable November 10 to holders of record October 25; preferred, \$2.50, payable December 22 to holders of record December 11.

ARMY RAILROADER Warren G. Harding, supply sergeant of the New Haven-sponsored railway operating battalion, now in France, recently went to an ordnance depot to replace a worn-out jeep. Hoping to fall heir to a new one, he decided to look around. In his tour of the depot he came upon one of the 3800 jeeps presented to the army through bond purchases by the Brotherhood of Railroad Trainmen, the jeep recognizable through a metal identifying plaque on its right side. The officer in charge, the story goes, assigned him this jeep for sentimental reasons.

Railway Officers

EXECUTIVES

C. I. Leiper, whose promotion to vice-president of the Pennsylvania with headquarters at Pittsburgh, Pa., was announced in the *Railway Age* of October 14, was born at Wallingford, Pa., on October 28, 1874. He attended Swarthmore College and entered railroad service in 1897 as a transitman in the construction department of the Pennsylvania at Altoona, Pa. He served as assistant supervisor of the Maryland division from 1901 to 1903, when he was promoted to supervisor, thereafter acting in that capacity on the Maryland, Pittsburgh and New York divisions. In 1909 he was named division engineer of the Manhattan division, being transferred to the New York division in 1911. From June, 1913, to February, 1914, he was principal assistant engineer of the Philadelphia, Baltimore &



C. I. Leiper

Washington (part of the Pennsylvania), later becoming superintendent of the New York, Philadelphia & Norfolk (part of the Pennsylvania) at Cape Charles, Va. In June, 1917, Mr. Leiper was named superintendent of the New York division of the Pennsylvania at Jersey City, N. J., and held that position until February, 1920, when he became general superintendent of the New Jersey division at New York. He was advanced to assistant general manager, Eastern region, at Philadelphia, Pa., in October, 1923, and in September, 1926, he was promoted to general manager, Central region, with headquarters at Pittsburgh, Pa. On February 1, 1939, he was named chief engineer of the Central region with the same headquarters, the position he held at the time of his recent appointment as vice-president.

FINANCIAL, LEGAL AND ACCOUNTING

The legal departments of the Kansas City Southern and the Louisiana & Arkansas at Kansas City, Mo., have been consolidated and will be under the direction of Frank H. Moore, who relinquishes the title of

general counsel of the K. C. S., but retains the title of vice-president. **Joseph R. Brown**, attorney of the K. C. S. for Arkansas and Oklahoma at Ft. Smith, Ark., has been promoted to general counsel of that road, with headquarters at Kansas City. **William E. Davis**, commerce counsel of the K. C. S. has been advanced to general solicitor, with headquarters as before at Kansas City, and **A. L. Burford**, general counsel of the Louisiana & Arkansas, has been appointed general solicitor of the K. C. S. with headquarters at Shreveport, La. **Frank W. Beatty**, chief clerk of the treasury department of the K. C. S. has been advanced to assistant treasurer, with headquarters as before at Kansas City.

Harry H. Ham, assistant to the treasurer of the Denver & Rio Grande Western at Denver, Colo., has been promoted to paymaster, with the same headquarters, succeeding **Freeman Sumner**, who has retired after 50 years of service.

Gordon A. Nicholson, special assistant to the trustees of the Denver & Rio Grande Western at Denver, Colo., has been promoted to chief claim agent, with the same headquarters, succeeding **T. B. Van Brunt**, who has retired after 32 years of service.

William Kruckstein, auditor of passenger and station accounts of the Chicago, Milwaukee, St. Paul & Pacific at Chicago, has been promoted to assistant comptroller, with the same headquarters, succeeding **C. A. Peterson**, whose death on October 5 is reported elsewhere in these columns.

C. V. Berglund, whose promotion to general superintendent of transportation of the Northern Pacific, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of October 7, was born at Minneapolis, Minn., on April 4, 1889, and attended business college for two years. He entered railway service on June 3, 1909, in the office of the division superintendent at Minneapolis and on March 1, 1920, he was appointed statistician and staff assistant in



C. V. Berglund

the vice-president's office in St. Paul. Mr. Berglund was appointed trainmaster at Livingston, Mont., on August 15, 1927, and was later transferred successively to Staples, Minn., and Dickinson, N. D. On June 1, 1936, he was advanced to assistant to the general manager, with headquarters

at Seattle, Wash., and in March, 1940, he was promoted to assistant to the vice-president of operation and maintenance, with headquarters at St. Paul. In the same year he was advanced to the position he held at the time of his new appointment.

OPERATING

James P. Newell, Jr., superintendent of freight transportation of the western region of the Pennsylvania, at Chicago, has been promoted to general superintendent of the Southwestern division, with headquarters at Indianapolis, Ind., succeeding **Walter O. Teufel**, who has been transferred to the Northern division, with headquarters at Buffalo, N. Y., replacing **F. D. Davis**, who has been granted a leave of absence. **Morton S. Smith**, superintendent of the Logansport division, with headquarters at Logansport, Ind., has been advanced to superintendent of freight transportation, relieving Mr. Newell at Chicago.

Mr. Newell was born at Carthage, Mo., on September 18, 1902, and was graduated from Princeton University in 1924. He entered railway service in 1927 as an assistant on the engineering corps of the Pittsburgh division of the Pennsylvania, and the following year he was promoted to assistant supervisor of track at Sharpsburg, Pa. In December, 1928, he was transferred to Carnegie, Pa., and in July, 1929, he was promoted to supervisor of track on the Buffalo division, with headquarters at East Aurora, N. Y. Mr. Newell later served as supervisor of track on the E. & A., Pittsburgh, Middle and Maryland divisions, being located at Wilmington, Del., in May, 1934, when he was promoted to assistant division engineer of the Middle division, with headquarters at Altoona, Pa. In July, 1937, he was transferred to the office of the vice-president, operation, at Philadelphia, Pa., and in March, 1938, he was advanced to division engineer of the Long Island (a subsidiary of the Pennsylvania), with headquarters at Jamaica, N. Y. In

Mr. Smith was born at Hughesville, Pa., on July 1, 1906, and attended Pennsylvania State College. He entered railway service on June 24, 1929, as assistant on the engineer corps of the Pennsylvania at Lancaster, Pa., and in the same year he was appointed assistant supervisor of track, serving in that capacity on the Baltimore, Philadelphia, Maryland and Middle divisions. In 1933 Mr. Smith was promoted to supervisor of track on the Monongahela division and until 1939 he served in the same capacity on various divisions. In 1940 he was advanced to division engineer of the Monongahela division and in February, 1943, he was transferred to the Long Island, with headquarters at Jamaica, N. Y. In July, 1943, he was promoted to the position he held at the time of his new appointment.

Harry A. Aberg, whose promotion to assistant general superintendent of transportation of the Northern Pacific, with headquarters at St. Paul, Minn., was reported in the *Railway Age* of October 7, was born at Chicago on April 16, 1881, and entered railway service on May 10, 1898, as an office boy of the Northern Pacific.



Harry A. Aberg

He subsequently served as a clerk, car distributor and chief car distributor until March 1, 1922, when he was advanced to traveling car service agent, with headquarters at St. Paul. On November 1, 1942, Mr. Aberg was promoted to general car service agent at St. Paul, the position he held at the time of his new appointment.

TRAFFIC

C. G. Stewart, general agent of the Chicago Great Western at Chicago, has been transferred to Omaha, Neb., succeeding **D. Northup**, whose death on September 18 is reported elsewhere in these columns.

Cy Harbeke, who has been serving with the armed forces in India, has been discharged and has returned to his position of general agent of the Denver & Rio Grande Western, with headquarters at San Francisco, Cal.

H. H. Wilson, general agent, freight department, of the Grand Trunk (a subsidiary of the Canadian National) with headquarters at New York, has been ap-

pointed general eastern freight agent with the same headquarters. Mr. Wilson succeeds **H. F. Rose**, who has been advanced to general freight agent at Buffalo, N. Y.

R. G. Holmes, assistant general freight agent of the Canadian Pacific at Winnipeg, Man., has been promoted to general freight agent, with the same headquarters, succeeding **H. A. Plow**, who has retired. **James Charters**, division freight agent at Vancouver, B. C., has been transferred to Regina, Sask., replacing **W. J. Anderson**, who also has retired.

J. P. Walsh, freight and passenger representative of the St. Louis Southwestern at Memphis, Tenn., has been promoted to assistant general passenger agent, with headquarters at Tyler, Tex., succeeding **C. M. Coates**, who has retired. **W. B. Wilson**, commercial agent at Laredo, Tex., has been advanced to assistant general freight and passenger agent, with headquarters at San Antonio, Tex., replacing **L. J. Hausman**, deceased.

Arthur E. Baylis, whose appointment as foreign freight traffic manager of the New York Central with headquarters at New York was announced in the *Railway Age* of October 7, was born April 9, 1910, at Colorado Springs, Col. He was graduated from Colorado College in 1932 and then acted as instructor in economics and transportation at Tufts College, Medford, Mass., until 1934, when he was granted a master of arts degree. After serving briefly on the staff of Federal Coordinator of Transportation at Washington, D. C., he joined the New York Central on February 15, 1935, as research clerk, office of vice-president, traffic. After appointments as staff assistant and chief clerk he was promoted to assistant to vice-president, traffic, in June, 1939. He was granted a furlough on June 1, 1942, to go with the Office of Defense Transportation as assistant director, division of traffic movement, at Washington,



Arthur E. Baylis

and held that position until his recent resignation and return to the New York Central as foreign freight traffic manager at New York.

James Bacon Sharpton, whose promotion to assistant passenger traffic manager of the Atlantic Coast Line with headquarters at



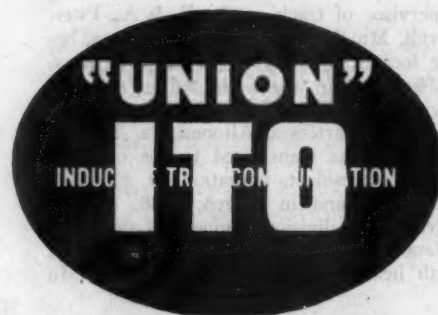
Morton S. Smith

April, 1940, he was advanced to superintendent of the Logansport division, and two years later he was transferred to the St. Louis division, with headquarters at St. Louis, Mo. On April 1, 1943, Mr. Newell was promoted to the position he held at the time of his new appointment.



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on train communication



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3. Trays are light enough to be handled by one man, and are fitted with a convenient handle for carrying.

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Wilmington, N. C., was announced in the *Railway Age* of September 30, was born at Edgefield, S. C., on March 31, 1902. He attended George Washington University and entered railroad service on December 17, 1923, with the Atlantic Coast Line as secretary to the freight traffic manager at Wilmington. He became assistant chief clerk in the freight traffic department



James Bacon Sharpton

in July, 1928, and was advanced to chief clerk in August, 1934. In August of the following year he was named special traffic representative, and he served in this capacity until August, 1939, when he was assigned to the position of assistant to the freight traffic manager. He was appointed assistant to the general traffic manager in September, 1940, and assistant to the vice-president in September, 1942, the position he held at the time of his recent promotion to assistant passenger traffic manager.

ENGINEERING & SIGNALING

John R. Rushmer, assistant engineer, Western Lines, of the Atchison, Topeka & Santa Fe, with headquarters at Amarillo, Tex., has been promoted to roadway engineer of the system, with the same headquarters.

John L. Niese, former assistant superintendent, telegraph, at Detroit and Indianapolis, has been appointed assistant to general superintendent, telephone and telegraph, New York Central System, effective September 15, with headquarters at New York.

Born January 24, 1895, in Madison, Ind., Mr. Niese was graduated from Purdue University, in 1916, with a bachelor of science degree in electrical engineering. After positions with Western Union, Western Electric and the Michigan Bell Telephone Companies, he served in World War I as a first lieutenant, Engineers, from May, 1917 to December, 1918. Leaving military service, he entered the employ of the N. Y. C., December 4, 1918, as telephone and telegraph engineer on the Big Four. In 1922, he was promoted to telephone and telegraph engineer at New York City. In 1926, he became superintendent, telegraph, on the Big Four and in 1931, assistant superintendent, telegraph, at De-

troit and Indianapolis, from which position he has now been promoted.

MECHANICAL

B. B. Barrett, assistant master mechanic of the Louisiana & Arkansas, has been promoted to master mechanic, with headquarters as before at Minden, La.

David R. I. Hourston, general foreman, motive power shop, of the Canadian National at Moncton, N. B., has been appointed general inspector, mechanical department, at Montreal, Que. His territory will cover the entire system.

Harvey A. Harris, whose promotion to master car builder of the Alton, with headquarters at Chicago, was reported in the *Railway Age* of October 7, was born at Renick, Mo., on September 11, 1893, and entered railway service on July 1, 1912, in the car department of the Wabash at Moberly, Mo. He later served as car repairer and car inspector until January, 1916, when he went with the Alton and Missouri-Kansas-Texas as joint interchange inspector. In January, 1922, he was appointed car foreman of the M-K-T, and in the following year he was appointed to a similar position with the Alton, serving in that



Harvey A. Harris

capacity at various terminals. In June, 1925, Mr. Harris was promoted to general freight car foreman, with headquarters at Bloomington, Ill., and in October, 1931, he was advanced to general car foreman. In 1942 Mr. Harris was promoted to general foreman of the car department, the position he held at the time of his new appointment.

J. M. Pierce, general master mechanic of the Kansas City Southern at Shreveport, La., has been promoted to superintendent of machinery, with headquarters at Pittsburg, Kan., succeeding **William Nelson**, who has been appointed mechanical assistant to the general manager, with headquarters at Kansas City, Mo.

Rudolph L. Kleine, who has been granted a leave of absence preparatory to his retirement as the Pennsylvania's assistant chief of motive power-car, as announced in the October 7 issue of *Railway Age*, was born at Philadelphia, Pa., on December 31, 1874. He attended Drexel Institute, and entered railroading on August 17, 1890, with

the Philadelphia, Baltimore & Washington (part of the Pennsylvania). He served as foreman on the Central division from December, 1900, until May, 1901, when he became general foreman at Washington, D. C. In July of the following year he was named general car inspector and held that position until his appointment as assistant chief car inspector, lines east, in May, 1906. The following October he was promoted to chief car inspector of the same lines, and he held that position until he was advanced to assistant chief of motive power-car, in 1920, the position he now leaves.

PURCHASES AND STORES

W. G. Mateer, chief clerk to the chief engineer of the Elgin, Joliet & Eastern at Joliet, Ill., has been promoted to purchasing agent, with headquarters at Chicago, succeeding **Charles H. Kenzel**, whose death on September 30 was reported in the *Railway Age* of October 7. **C. R. Littler**, chief clerk of the purchasing department, has been advanced to assistant purchasing agent, with headquarters as before at Chicago.

OBITUARY

D. Northup, general agent of the Chicago Great Western, with headquarters at Omaha, Neb., died at his home in that city on September 18.

C. A. Peterson, assistant comptroller of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Chicago, died in a hospital in that city on October 5.

Horace Baker, who retired in 1920 as general manager, Lines West, of the Southern, with headquarters at Cincinnati, Ohio, died at Sarasota, Fla., on October 15.

Victor R. Krueger, assistant engineer of the Chesapeake & Ohio at Richmond, Va., died October 13 in the Clifton Forge Hospital, Clifton Forge, Va. He was 47 years old.

John B. Dickson, who retired in 1917 as general manager, Lines West, of the Erie, with headquarters at Youngstown, Ohio, died at his home in that city on October 4.

Robert B. Kay, secretary, assistant treasurer, and claim agent of the Hudson & Manhattan, died in the Elizabeth General Hospital, Elizabeth, N. J., on October 13. He was 61 years old.

William M. Anderson, who retired in 1937 as master mechanic of the Chicago, Milwaukee, St. Paul & Pacific, with headquarters at Lewiston, Mont., died recently at San Diego, Cal.

Manuel Gonzalez, president of the Ferrocarriles de Circunvolucion de Puerto Rico, and a former president of the American Railroad Company of Porto Rico, died October 16. He was 82 years old.

Paul T. Sanderson, receiver of the Waco, Beaumont, Trinity & Sabine, president and general manager of the Texas Long Leaf Lumber Company, Trinity, Tex., and president of the Southern Pine Association, died at Mexico City, D. F., on October 9.

Operating Revenues and Operating Expenses of Class I Steam Railways

(Switching and Terminal Companies Not Included)

FOR THE MONTH OF AUGUST, 1944 AND 1943

Item	United States		Eastern District		Southern District		Western District	
	1944	1943	1944	1943	1944	1943	1944	1943
Miles of road operated at close of month	228,551	229,132	56,064	56,264	43,353	43,422	129,134	129,446
Revenues:								
Freight	\$617,347,606	\$585,592,633	\$229,419,880	\$230,773,258	\$114,140,493	\$106,355,174	\$273,787,233	\$248,464,201
Passenger	162,069,944	161,969,850	69,292,291	67,768,867	30,613,694	31,723,522	62,163,959	62,477,461
Mail	9,970,169	9,963,999	3,452,660	3,335,187	1,757,911	1,927,885	4,759,598	4,700,927
Express	12,465,460	10,421,341	3,925,666	3,373,121	1,621,214	1,161,000	6,918,580	5,887,220
All other operating revenues	34,330,234	32,229,508	15,008,378	13,934,359	4,438,418	3,950,335	14,883,438	14,344,814
Railway operating revenues	836,183,413	800,177,331	321,098,875	319,184,792	152,571,730	145,117,916	362,512,808	335,874,623
Expenses:								
Maintenance of way and structures	114,445,585	96,873,606	43,777,151	36,910,287	19,331,386	15,253,950	51,337,048	44,709,369
Depreciation	8,891,165	8,766,697	3,831,452	3,757,767	1,480,764	1,491,312	3,578,949	3,517,618
Retirements	1,503,495	951,156	411,665	161,697	232,491	25,313	859,339	764,146
Deferred maintenance	244,557	793,436	35,613	80,269		5,388	208,944	718,557
Amortization of defense projects	1,680,849	950,922	519,136	363,092	318,161	147,745	843,552	440,085
Equalization	2,784,013	1,045,399	2,147,093	599,885		213,005	581,062	658,519
All other	105,398,646	86,456,792	41,197,604	33,147,347	17,355,828	13,381,963	46,845,214	39,927,482
Maintenance of equipment	135,848,100	117,096,089	56,718,397	49,018,012	25,534,474	21,857,430	53,595,229	46,220,647
Depreciation	17,982,868	17,715,228	7,590,587	7,528,885	3,603,146	3,646,291	6,789,135	6,540,052
Extraordinary retirements	3,304				3,304			
Deferred maintenance and major repairs	201,848	310,872	3,438	5,334		4,865	205,286	310,403
Amortization of defense projects	14,496,335	10,155,249	4,763,714	3,475,985	3,643,016	2,258,522	6,089,605	4,420,742
Equalization	191,540	191,540	51,043	6,291	2,498		33,443	124,362
All other	103,656,037	89,106,280	44,411,701	38,014,099	18,289,118	16,018,369	40,955,218	35,073,812
Traffic	11,478,712	10,355,028	4,124,443	3,774,610	2,122,473	2,034,549	5,231,796	4,545,869
Transportation—Rail line	249,757,353	219,289,548	109,153,183	97,034,816	42,081,123	37,071,087	98,523,047	85,183,645
Transportation—Water line	80	56					80	56
Miscellaneous operations	10,057,077	9,095,854	3,610,935	3,198,790	1,555,651	1,460,482	4,890,491	4,436,582
General	16,901,954	14,543,792	6,885,755	5,712,635	3,285,918	2,954,434	6,730,281	5,876,723
Railway operating expenses	538,488,861	467,253,973	224,269,864	195,649,150	93,911,025	80,631,932	220,307,972	190,972,891
Net revenue from railway operations	297,694,552	332,923,358	96,829,011	123,535,642	58,660,705	64,485,984	142,204,836	144,901,732
Railway tax accruals	178,079,269	183,987,086	52,867,470	61,908,097	38,683,131	41,533,950	86,528,668	80,545,039
Pay-roll taxes	19,826,982	17,486,269	8,359,309	7,427,924	3,413,744	2,962,550	8,053,929	7,095,795
Federal income taxes†	132,326,617	139,801,832	32,689,432	42,381,293	30,382,881	33,395,560	69,254,304	64,024,979
All other taxes	25,925,670	26,698,985	11,818,729	12,098,880	4,886,506	5,175,840	9,220,435	9,424,265
Railway operating income	119,615,283	148,936,272	43,961,541	61,627,345	19,977,574	22,952,034	55,676,168	64,356,693
Equipment rents—Dr. balance	13,561,765	13,076,354	5,099,974	5,498,373	14,581	265,778	8,476,372	7,312,203
Joint facility rent—Dr. balance	4,687,905	3,588,831	2,278,611	1,876,723	667,029	456,003	1,742,265	1,256,105
Net railway operating income	101,365,613	132,271,087	36,582,956	54,252,449	19,325,126	22,230,253	45,457,531	55,788,385
Ratio of expenses to revenues (per cent)	64.4	58.4	69.8	61.3	61.6	55.6	60.8	56.9

FOR EIGHT MONTHS ENDED WITH AUGUST, 1944 AND 1943

Item	United States		Eastern District		Southern District		Western District	
	1944	1943	1944	1943	1944	1943	1944	1943
Miles of road operated at close of month	228,673	229,153	56,097	56,324	43,379	43,447	129,197	129,382
Revenues:								
Freight	\$4,684,249,934	\$4,473,598,626	\$1,801,824,113	\$1,758,957,018	\$892,097,517	\$863,148,958	\$1,960,328,304	\$1,851,492,650
Passenger	1,204,265,302	1,067,777,104	486,066,745	433,273,674	238,403,072	220,049,992	479,795,485	414,453,438
Mail	81,307,100	78,387,253	27,304,634	27,362,053	15,178,110	14,266,105	38,424,356	36,759,095
Express	95,390,906	82,474,932	31,490,139	27,985,271	14,460,658	12,349,886	49,440,109	42,139,775
All other operating revenues	246,079,950	235,414,295	106,018,612	103,939,248	33,852,414	30,932,421	106,208,924	100,542,626
Railway operating revenues	6,281,293,192	5,937,652,310	2,452,704,243	2,351,517,264	1,193,991,771	1,140,747,362	2,634,597,178	2,445,387,584
Expenses:								
Maintenance of way and structures	828,916,209	679,432,195	313,459,561	260,191,632	142,738,679	119,266,932	372,717,969	299,973,631
Depreciation	70,595,099	70,350,759	30,500,308	30,274,446	11,625,072	11,792,657	28,469,719	28,283,656
Retirements	9,986,330	2,823,940	3,340,462	625,871	1,127,148	243,321	5,518,720	1,954,748
Deferred maintenance	3,924,769	305,473	644,080	93,309		40,273	3,280,689	439,055
Amortization of defense projects	12,213,437	6,143,465	3,936,412	2,062,033	2,195,726	1,086,084	6,041,299	2,995,428
Equalization	7,949,956	14,132,558	1,908,937	4,578,032	2,907,241	5,028,084	3,133,778	4,526,442
All other	732,096,156	585,676,000	274,417,522	222,744,559	124,883,492	101,157,139	332,795,142	261,774,302
Maintenance of equipment	1,053,239,285	908,922,178	442,477,146	388,052,319	197,204,300	170,786,791	418,557,839	350,113,068
Depreciation	142,412,140	140,121,259	60,071,368	59,518,635	28,564,206	28,731,964	53,776,566	51,870,660
Extraordinary retirements	5,897		593		4,973		1,517	
Deferred maintenance and major repairs	1,075,578	932,297	13,472	10,668		46,914	1,089,000	968,543
Amortization of defense projects	108,756,360	82,832,240	35,967,546	28,935,615	28,088,587	19,303,752	44,700,227	34,592,873
Equalization	75,138	828,786	57,927	392,583	3,948	360,297	21,159	75,904
All other	801,077,072	684,207,596	346,366,240	299,194,816	140,560,428	122,407,692	316,150,404	262,605,088
Traffic	89,737,772	82,456,674	32,196,735	30,150,939	16,077,826	15,986,426	41,463,211	36,319,309
Transportation—Rail line	1,957,273,434	1,708,909,951	872,697,021	769,506,301	331,485,408	292,040,367	753,091,005	647,363,283
Transportation—Water line	4,903	12,210					4,905	12,210
Miscellaneous operations	79,110,234	67,809,965	28,089,339	24,410,846	12,955,006	11,044,504	38,065,889	32,354,615
General	133,041,617	116,722,124	53,560,476	47,236,352	25,590,799	23,180,070	53,890,342	46,305,702
Railway operating expenses	4,141,323,456	3,564,265,297	1,742,480,278	1,519,548,389	726,052,018	632,275,090	1,672,791,160	1,412,441,818
Net revenue from railway operations	2,139,969,736	2,373,386,913	710,223,965	831,968,875	467,939,753	508,472,272	961,806,018	1,032,945,766
Railway tax accruals	1,249,773,822	1,272,188,314	367,048,195	416,446,137	297,904,814	308,056,458	584,820,813	547,685,719
Pay-roll taxes	154,191,909	132,121,024	65,008,537	56,311,507	26,860,412	23,135,113	62,322,960	52,674,404
Federal income taxes†	895,872,784	938,460,149	218,461,537	272,682,851	230,206,070	244,764,725	445,155,177	421,012,573
All other taxes	199,759,129	201,607,141	83,578,121	87,451,779	40,838,332	40,136,620	79,342,676	73,998,742
Railway operating income	890,195,914	1,101,198,599	343,175,770	415,522,618	170,034,939	200,415,814	376,985,205	485,260,047
Equipment rents—Dr. balance	102,789,177	101,542,487	46,004,241	41,845,619	5,010,743	7,483,369	51,774,193	52,213,499
Joint facility rent—Dr. balance	28,829,538	27,358,943	13,876,154	13,828,839	3,410,228	3,335,051	11,543,156	10,195,053
Net railway operating income	758,577,199	972,297,169	283,295,375	359,848,280	161,613,968	189,597,394	313,667,856	422,851,495
Ratio of expenses to revenues (per cent)	65.9	60.0	71.0	64.6	60.8	53.4	63.5	57.8

* Decrease, deficit, or other reverse items.

† Includes income tax, surtax, and excess-profits tax.

‡ Railway operating revenues are after deduction of \$31,425,929 for the eight months ended with August 1944, and \$17,019,878 for the eight months ended with August 1943 to create a reserve for land grant deductions in dispute.

Compiled by the Bureau of Transport Economics and Statistics, Interstate Commerce Commission. Subject to revision.

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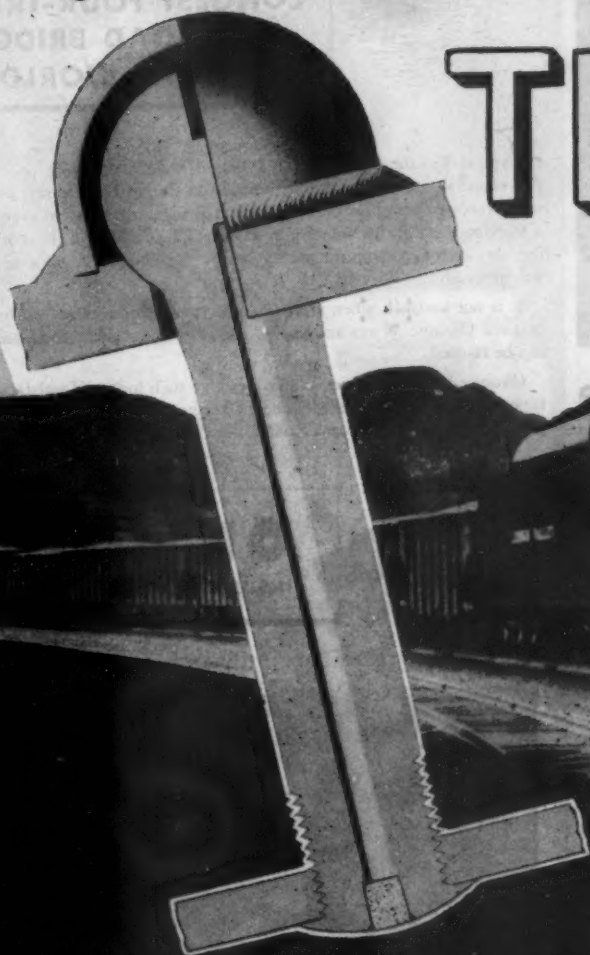


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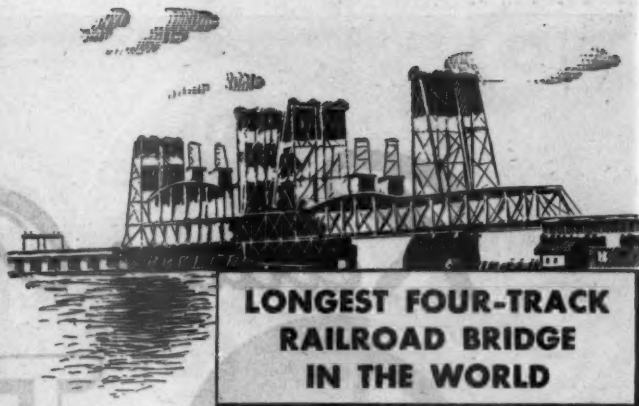
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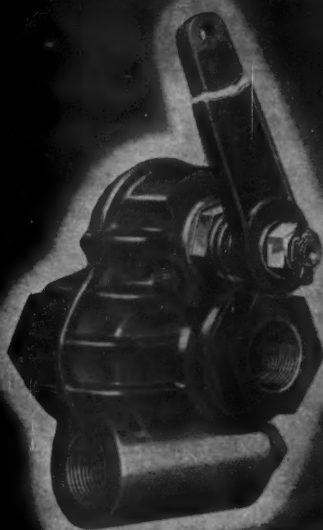
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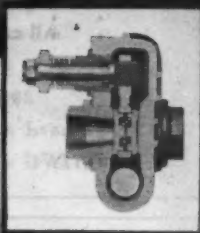
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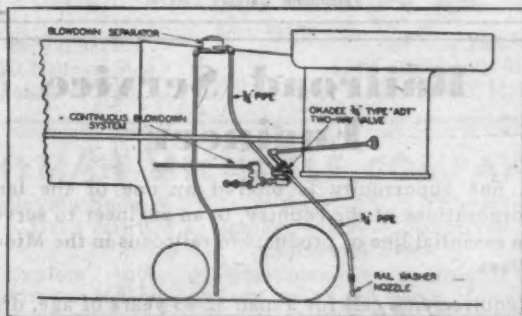


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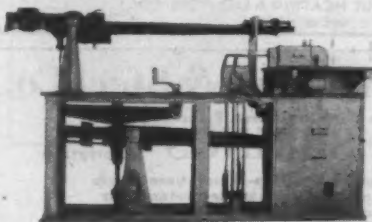
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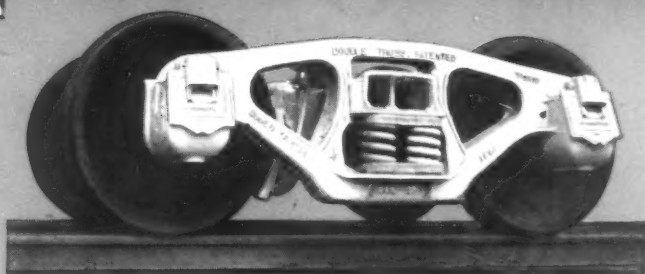
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